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ABSTRACT

This document consists of the first 10 issues of the newsletter, "Prevention Researcher," published during the 4-year period 1994 through 1997. The 1994 issues (two) focus on dating violence and youth gangs. The 1995 issues (two) focus on Internet resources for prevention professionals and on drunk driving. The 1996 issues (three) focus on models for effective prevention of violence, student athlete alcohol use, and adolescent suicide. The 1997 issues (three) focus on adolescent pregnancy, juvenile delinquency, and eating disorders. (RJM)

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THE PREVENTION RESEARCHER NEWSLETTER

Vol. 1, No. 1 SPRING 1994

The PREVENTION RESEARCHER

A service division of Integrated Research Services

LOVE AND DANGER

Male Violence Against Intimate Partners: Hard Choices for Women Who Face Violence At Home

By Angela Browne, Ph.D.

Her name was Margaret Preuss. She had come to the courthouse in downtown Denver to attend a hearing on her request for a temporary restraining order against her abusive husband. She was on time. She was prepared. Unfortunately, however, the hearing was never held. As Margaret Preuss walked toward the courthouse shortly before 2 p.m. on a sunlit October afternoon, her ex-husband suddenly jumped from a car with a gun, chased her up the courthouse steps, and shot her, ending her life.

Margaret Preuss's story is tragic, but not unique. The crushing end to her attempts to live in safety reminds us of the extreme risks many women face when confronted with violence from a marital or dating partner. Even though our fears have traditionally centered around the danger of attacks by strangers, women in the United States are more at risk to be assaulted, raped, or killed by their own male partners, current or ex, than by all other types of assailants combined.

> More than three out of every 100 women are severely assaulted by their male partners.

Margaret's story also illustrates the hard choices facing women whose male partners become abusive. For Margaret did everything "right," according to societal prescriptions: She refused to tolerate the abuse, she turned to courts of law for protection instead of taking matters into her own hands, she followed through by appearing at the hearing on her request. In our unfortunate emphasis on what is "wrong" with women who stay with violent mates, we often forget that women leave abusive partners every day. Yet, in many cases, an abusive man's violence continues to escalate even after separation.

After nearly twenty years of learning about and developing responses to violence in partner relationships, the continuing occurrence of severe and lethal assaults mandate that we reexamine both the realities of violence between intimate partners and our attempts to respond to that violence.

VIOLENCE IN INTIMATE RELATIONSHIPS BETWEEN MEN AND WOMEN

Abuse in couple relationships may include intense criticisms, name calling, verbal harassment, sexual coercion and assault, physi-

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cal attacks and intimidation, restraint of normal activities, and isolation from resources and friends. Although all of these dimensions have significant impacts on their victims, this discussion will focus primarily on acts of physical aggression with the potential to injure or kill, sexual aggression, and threats to kill or to harm.

Physical Assault

In thinking about violence in couple relationships, it first is important to realize that, far from being a "special interest" topic, this is a national problem of serious proportions. Surveys conducted since 1975 find that approximately one-quarter of couples in the United States report at least one incident of physical aggression occurring during the course of their relationship. Despite our image of "domestic violence" as relatively minor assaults and squabbles, more than three out of every 100—or 1.8 million—women were severely assaulted by their male partners; i.e., they were punched, kicked, choked, beaten up, threatened with a knife or gun, or actually had a knife or gun used on them by a mate.

As high as these figures seem, they represent only underestimates of the problem. National surveys typically do not include the very poor, those who do not speak English well, military families living on base, and all individuals who are hospitalized, homeless, or in a prison or jail at the time the survey is conducted. Based on the last 17 years of research, experts now estimate that a minimum of three to four million women are assaulted by male partners each year in the United States, and that from 25% to 34% of all women will be physically assaulted by an intimate male during adulthood.

> Women's risk of life-threatening assault at the hands of a male partner is higher than from any other type of assailant.

Sexual Assault

Like physical assault, most sexual assault of women is by their male intimates. Fourteen percent of ever-married women in a random sample of 930 reported being raped by a husband or ex-husband; more than twice as many as had been raped by acquaintances or strangers. Sexual assault is especially likely in relationships in which other forms of physical aggression occur. Contrary to the assumption that violence perpetrated by strangers is more serious than violence by intimates, the closer the relationship between rapist and victim, the greater the level of aggression and the potential for injury. The most violent episodes often include sexual as well as physical attack, with men who are both physically and sexually aggressive perpetrating more severe nonsexual aggression than other abusers.

Are Women and Men Equally Violent?

Of course, both women and men can be verbally or physically aggressive. In some national surveys, about as many women as men report that they have perpetrated at least one of the behaviors listed on a scale (push, shove, slap, kick, hit, beat up, etc.) at least one time during their relationship. On the basis of these findings, some researchers have concluded that women are about "as violent as men" in couple relationships.

However, common sense would indicate that the potential for severe bodily harm of being kicked, punched with a fist, "beaten up," or raped by a typical unarmed man versus a typical unarmed woman cannot simply be equated. Imagine, for example, trying to assess car accidents—or worse, equate them—without any knowledge of the types of vehicles involved, the velocity before the crash, or the point of impact.

Physical Outcomes of Partner Violence for Women

Once physical assault has occurred in a relationship, it often becomes chronic. In part, this repetition of aggression is due to the amount of time intimates spend together, the shield that privacy provides for physical and verbal abuse, and the fact that the physical or sexual assault of a wife or girlfriend is still a relatively low-risk behavior for a man in terms of identification or sanctions.

As noted, there are sharp gender differences in physical outcomes of partner violence for women and men. Men's greatest risk of injurious or life-threatening physical or sexual assault by intimates is during childhood and adolescence—

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primarily from siblings, adult relatives, and family friends. As adults, men are at greater risk of violence from acquaintances and strangers than from wives or girlfriends, with the majority of their assailants being other males. Compared to the dangers men face from men, their risk of severe physical injury or death from wives is low.

In contrast, women's risk of injurious or life-threatening assault at the hands of a male partner is higher than from any other type of assailant. Injuries sustained by women as a result of marital violence range from bruises, cuts, black eyes, concussions, broken bones, and miscarriages to permanent injuries such as damage to joints, partial loss of hearing or vision, scars from burns, bites, or knife wounds or even death. Women with violent mates are likely to have medical evidence of old injuries such as fractures, strained or torn ligaments, and bruises in various stages of healing. Multiple injuries and injuries to the head, chest, and abdomen also are frequently seen in women victims of violence by a male partner, but are almost never seen in their mates.

Lethal Outcome

Homicide figures for the U.S. further illustrate the potential severity of partner violence, as well as the differential risks for women and men. Whereas most male homicide victims are killed by strangers and acquaintances and usually by other men, women's greatest risk of lethal assault is cross-gender and from their intimates. Ninety percent of women homicide victims are killed by male assailants; approximately 70% of all women who are murdered are killed by a current or former husband or boyfriend.

National statistics on homicide do not contain information about the prior interactions of specific couples; thus, no national estimates are available on the number of partner homicides that involve a history of physical assault and threat prior to the lethal incident. However, more detailed studies of homicides in cities and counties do indicate that, in addition to committing fewer partner homicides than men, a significant proportion of partner homicides by women are in response to their partners' aggression and threat. For example, women are much more likely than men to kill during an incident in which their partner was the first to use violence, or to kill to avert an incident in which they believe that they or a child will be seriously injured or killed. In contrast to the assumption that women typically kill partners who are sleeping or otherwise incapacitated at the time, most partner homicides by women occur during an assaultive incident against the woman or a child.

> The point at which many outsiders believe a woman should leave—immediately after an assault—is precisely when she may be least able to plan such a move.

Because of the link between homicides by women and violence against women by male partners, researchers have theorized that the presence of resources to allow threatened women to escape or be protected from a partner's violence may act to offset at least some of the killings that otherwise occur in desperation and self-defense. An analysis of national trends in partner homicide for the years of 1976 through 1984 in fact revealed a sharp decrease—over a 25% decline—in the numbers of women killing male partners during this period. This decrease began in 1979, at about the time that domestic violence legislation and community resources for abused women were becoming established in most of the 50 states. Further analysis revealed that those states having more domestic violence legislation and other resources for abused women (e.g., funding for battered women's shelters, crisis lines, legal aid) had lower rates of homicide by all women against their male partners; and that the presence of resources for abused women was correlated with the general decrease in partner homicides by women during these years.

Psychological Outcomes of Partner Violence for Women

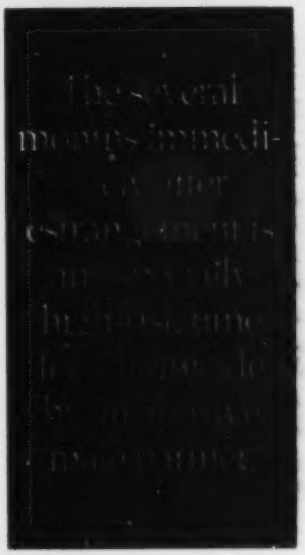
The impact on a woman of even a single incident of violence should not be underestimated. Although women who are assaulted "only once" are rarely labeled as battered and still less often studied, any use of violence in a relationship can dramatically alter the balance of power—destroying a sense of openness and trust on the part of the woman and resulting in a permanent sense of inequality, threat, and loss.

Survivors' Responses to Trauma

Stories of severe violence make us wonder why abused women endure such brutality. Although the responses of "battered women" are often questioned, reactions of women to assaults from intimate male partners parallel the reactions of other types of victims—both male and female—across many other types of traumas. Like victims of war, crime, or natural disaster, abused women may initially deny the threat, leading to a delay in accurately defining or responding to the situation. Like other types of victims during assaults, women victims' primary focus is usually on self-protection and survival. During and even after an assault, the victim may offer little or no

resistance, in an attempt to minimize the threat of injury or of renewed aggression.

As with all types of victims, assaulted women after attack may become dependent and suggestible and find it difficult to carry out long-range planning or to make decisions alone. In an attempt to avoid becoming overwhelmed, they may voice unrealistic expectations about recovery and convince themselves that they can "rebuild"—that, somehow, everything will be all right. The point at which many outsiders believe a woman should leave—immediately after a violent incident—is precisely when she may be least able to plan such a move. Frightened, in shock, and often physically injured, all she wants to do is survive. As levels of threat and violence escalate, victims' perceptions of alternatives become increasingly limited, and all alternatives may seem too dangerous to pursue.



The Continuum of Threat and Danger

One of the major problems with the question, "Why don't abused women just leave?" is that it assumes leaving will end the violence. Abused women's primary fear—that, if they leave, their abusers will find them and retaliate—is often justified. The evidence suggests that, in many cases, an abusive man's violence against his partner continues to escalate after separation. Some women who left violent men have been followed and harassed for months or even years; and some have been killed. Studies indicate that the several months immediately after estrangement is an especially high-risk time for a homicide by an abusive male partner. Violent men may nearly kill their partners during assaults, but they don't want to lose them. They often search desperately for their partner once the woman leaves, spending their days and nights calling her family and mutual acquaintances, phoning her place of employment or showing up there, haunting school grounds, playgrounds, and grocery stores. She is mine, they insist. She cannot leave and refuse to talk to me!

For many women, leaving their mates and living in constant fear of reprisal or death seems more intolerable than remaining with them, despite their fears of further harm. Women in hiding talk about how they are afraid to go into their apartments when they get home (what if he is there?), to go to work in the morning or to leave at night, to approach their cars in a parking lot, to visit their friends. They know if their estranged partner finds them, he may simply retaliate and not wait to talk. If he begins a conversation and they do not agree to go home, that may trigger an attack as well. Every sound at night, every step in the hall, every pair of headlights pulling up behind them, might be him. Accomplishing daily tasks against this wall of fear can be exhausting. One woman, charged with the death of her husband, said:

I knew if I ran he would find me. He tracked down his first wife with only her social security number. Can you imagine what it would be like to go through life, knowing that a man who intends to kill you may be just around the corner?

Recommendations and Implications

The past two decades have witnessed sweeping policy changes and legal innovations to address violence by men against their female intimates. However, in the aggregate, women are not much safer, at least from severe and lethal violence. The continued severity of male violence against their current or ex- woman partners—and the increase in the killing of women cohabitants and girlfriends—implodes any complacency one might have that having "come a long way" in this area is anywhere close to far enough.

Responses to women assaulted by male partners by most societal institutions are still based primarily on a lack of knowledge about the potential for a current or past history of partner violence in women's lives, the severity of risks faced by women who experience threat or assault from male partners, the persistence of these risks whether the woman is with or is separated from the abuser, and the resources available for safety and support. In most health and human services settings, routine screenings for a history of victimization are almost never done. Doctors often simply itemize injuries and do not inquire about the context in which those injuries were received or about the possibility that there is ongoing danger to the patient. Even within the mental health professions, standard procedures of history-taking, evaluation of suicide risk, assessment of personality, depression, substance abuse and anxiety, and measurements of life events all routinely fail to include questions about violence by intimates.

Only when we intensify our investigation into why some men perpetrate physical violence against their women partners, and begin to truly focus on preventing this violence, will we make strides toward assuring women's safety in their most intimate relationships. An enhanced understanding of the prevalence, severity, and tenacity of men's violence against their female intimates would lead to:

- A different understanding of the legitimacy of women's reactions to trauma and life-threat and the choices they make;
- Different bases for initial and long-term responses by policy makers, mental health and legal practitioners, and others;
- Expansions in society's

remedies of choice: There is desperate need for the development of long-term resources for the stabilization of women and children apart from violent mates;

• A new emphasis on proactive remedies for male violence against women, given the tenacity of this violence in the face of current levels of awareness, interventions, and sanctions.

Responding to women victims in light of the severity of the danger they face would save lives now lost when "domestic" assaults and "women's fears" of reprisals by male partners are trivialized. If we, as a nation, care about the safety of women, we must attend to this, their area of greatest risk.

Angela Browne, Ph.D. is a social psychologist with particular expertise in the area of family violence. Since 1979, she has studied patterns of physical assault and threat in couple relationships, post-traumatic effects of physical and sexual assault on women and children, and homicides between intimate partners. Parts of this article were adapted from an article which appeared in The American Psychologist, 1993, 48, 1077-1087. Permission to excerpt was granted by the American Psychological Association and the author.

American Violence Toward Women

A Prevention Model for Our Culture

By Jack W. Dresser, Ph.D.

In a recent *American Psychologist* article entitled *Violence Against Women, The Congressional Response*, U.S. Sen. Joseph Biden, Jr. states that "America has failed to grasp either the scope or the seriousness of violence against women." He makes a strong argument: "If the leading newspapers were to announce tomorrow a new disease that, over the past year, had afflicted 3 million to 4 million citizens, few would fail to take notice. Yet, when 3 million to 4 million women are victimized by violence each year, the alarms ring softly. We live in a nation that has three times as many animal shelters as shelters for battered women and where crimes against women are still perceived as anything but crime—as a family problem, as a private matter, as 'sexual miscommunication'....Every day, every hour, indeed every minute, a woman in the United States suffers the pain and violence of a physical attack. Every six minutes, a woman is raped. Domestic violence is the leading cause of injuries to women aged 15-44.... Spouse abuse is more common than automobile accidents, muggings and cancer deaths combined." Surveys of random population samples typically suggest a prevalence of sexual abuse and rape among women in the neighborhood of 15-20%, but some samples have reported rates much higher.

Since 1990, Biden has conducted hearings in the U.S. Senate Judiciary Committee on violence against women, exploring its profound personal and societal costs. Experts have testified that rape is our most underreported crime and rates are vastly underestimated. A third of unreported family violence would be felonies, with the rest inflicting injury comparable to 90% of stranger-inflicted crimes. Over a million women annually seek treatment for injuries caused by a male partner's violence, and a half-million girls are raped before their high school graduation. Yet denial persists, and acquaintance-rape cases are still difficult to prosecute due to stereotypical perceptions—"she asked for it," or "no harm done"—which perpetuate official neglect.

> Clearly, the first step in prevention is acknowledgement that there is a problem.

Legislation So Far

Congress first reformed federal rape laws in the 1970s to exclude the victim's sexual history as a defense. In the 1980s, Congress started funding battered women's shelters and victim's compensation programs from offenders' fines, prioritizing rape and domestic violence victims. Senator Biden has proposed a further legislative response, his Violence Against Women Act within the Senate's Omnibus Crime Bill. This will strengthen laws for rape and domestic violence, provide funds to compensate survivors, create legal remedies for victims of violence motivated by gender discrimination, and provide resources and training for educating judges, police, prosecutors and victim advocates.

More is Needed

Mr. Biden acknowledges that, however important, this measure is unlikely to significantly alter the root causes of violence against women. It focuses on sanctions for offenders and compensation for victims, programs after-the-fact of violence. Decades of research on human learning clearly demonstrate that "reinforcement" applied uncertainly, inconsistently, or following significant time delay, has a negligible effect in changing behavior. Most violence occurs without documentable consequences or legal intervention. Other sanctions administered after violence occurs illustrate this

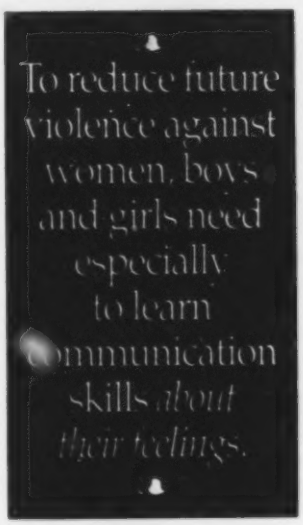
principle all too well. Despite being alone among industrialized nations in retaining capital punishment, the U.S. murder rates are four to twenty times those in Europe and Japan.

Legislation can serve to raise public awareness and define social norms, but we need to more directly target the attitudes, values and expressive habits behind violence, which is but one manifestation—albeit the most dramatic—of communication and relationship failure. Intense emotional pain is both cause and effect of violence, and keeps it recycling. Violence is one of many "dysfunctions" resulting from our widespread inability as a people to resolve conflicts skillfully and to provide each other with needed care and support. We need to learn to *relate more successfully*, and we need to learn it early.

The Prevention Approach

I therefore believe strongly in *prevention*, both "primary prevention" with the general school-age population (through college), and "secondary prevention" (intervention) with high-risk individuals who identify themselves through incidents of violence. As a specialist for the past 12 years in prevention theory, prevention program development and evaluation, and training of educational and counseling staff, I can attest that the prevention field has developed methods which work. In substance abuse prevention for example, NIDA's annual national survey of high school seniors shows that experimentation with cocaine has declined from 17% in the mid-1980s to 6% today, with amphetamines from over 30% in 1981 to 14-15%, with barbiturates from a 1975 high of 17% to 5-6%, with methaqualone from over 10% in 1982 to less than 1%, and with marijuana from over 60% in 1979-80 to about 35% today. Moreover, prevention research has identified risk and protective factors for substance abuse, and effective countermeasures with both general and high-risk populations. These include peer education, "alternative" activities, social and life skills training, individual attention which promotes bonding with adults and social institutions, parent and community involvement, supportive intervention during stress or crisis, and stable social structures.

Since "dysfunctional" behaviors typically overlap, I'm certain that similar methods can be applied to reduction of violence. Clearly, the first step in prevention is acknowledgment that there is a problem. In addition, Americans need to recognize the *deviance* of our cultural violence by larger human standards. For example, our annual homicide rate among young males is over four times that of the closest runner-up (Scotland), 22 times that of Germany, 44 times that of Japan, and 73 times that of Austria. Over half are committed by family, friends and acquaintances of the victim, with only 15% occurring during another crime and only 1% committed by gangs. Violence is clearly a commonplace American method of problem solving, and the problem of violence toward women in America is embedded in our overall violence as a culture.


To reduce future violence against women, boys and girls need especially to learn communication skills *about* their feelings.

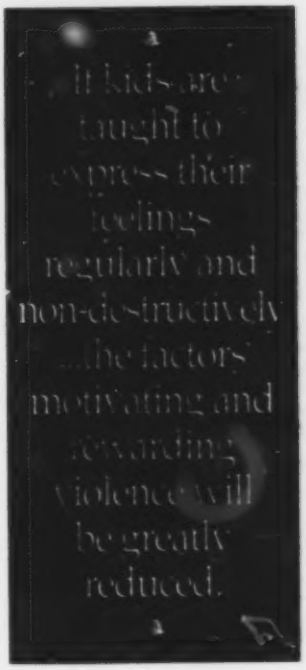
Probable Causes and Possible Cures

Once we acknowledge violence as a serious problem and a cultural flaw, we must discover its sources in order to develop effective countermeasures *for our national culture*. After all, we are not only the most violent but also the most litigious of Western cultures; ours is a confrontational society. The Cultural Theory of Douglas and Wildavsky provides a useful perspective on this. Cultures can be defined by two independent social dimensions: degree of control and degree of cohesion. In high control societies, conflict is resolved by submission determined by rank. In high cohesion societies, conflict is minimized by seeking social harmony. America, founded on the ethos of independence and rejection of the "high control" models of Europe, is an *individualistic* society low in both control and cohesion. Disdaining control by either authority or conformity, Americans must learn other methods. Manipulation or domination, including force, is one alternative, the *reductio ad absurdum* of which is violence. Our cultural heroes from George Washington through Wyatt Earp through Magnum PI tend to be rebels or rescuers who pursue their (always righteous) goals through force. But within our cultural system, what's another alternative?

Teach interpersonal skills. Although less dramatic and more time-consuming than force, negotiation is the other alternative, which respects rather than discounts opposing parties. Thus, negotiation skills become of paramount importance *within our culture in particular*. To reduce their cultural proclivities toward shootouts, our children need to be taught how *and why* to negotiate, including respect for others, listening, more empathy and less blaming. And children learn primarily by modeling; they learn to listen by being heard and learn respect by being respected. To reduce future violence against women, boys and girls need especially to learn communication skills *about their feelings*. Communication and conflict-resolution training should be provided *in vivo* throughout the school years, including college.

Start early. Our tendency to violence is seen increasingly in our schools, where students and even teachers often fear to go. In a recent survey of Chicago schoolchildren, 11% had been shot at during the past year. The seeds of violence need to be detected and uprooted at an early age. Today's violent offenders were yesterday's schoolchildren. Had primary

prevention programs been in place, non-violent communication skills might have been established. With early intervention programs in place, warning signals might have attracted help in time.


If kids are taught to express their feelings regularly and non-destructively ...the factors motivating and rewarding violence will be greatly reduced.

Present new role models and social norms. Our social norms need to be seriously examined and modified. Basic Training for violence begins for many during the fantasy-dominated years of early childhood, when destructive fantasies arising from family jealousies, resentments or abuses are repeatedly reified and reinforced by cartoons where violence is shown as the first choice in a conflict, and without lasting consequences since the crushed or exploded victim is magically restored in the subsequent frame.

This is soon followed by unrelenting Advanced Training through films and TV dramas, where men of few words (demonstrating no communication or negotiation skills) and no higher ethic than *Make my Day!* are represented as the ultimate problem solvers. Violence for the power-driven hero is always justified and therefore guilt-exempt. It is entirely narcissistic, since we need not care about the villain-turned-victim, or his family, who remain invisible. Moreover, the hero typically *enjoys* his mayhem (Make my Day exciting and satisfying!). There is abundant research documenting the effect of vicarious aggression on increasing aggressive behavior, and this vicarious *pleasure* is undoubtedly no small part of it. Instead, we must display heroes who demonstrate clear thinking, deep human feeling, and interpersonal skills in finding complex solutions to complex problems. I suggest people such as Raoul Wallenberg, Oskar Schindler, Albert Schweitzer, Mother Theresa, Medgar Evers, Marie Curie, Jonas Salk, and Jaime Escalante, high-impact problem solvers who assault nobody, figures who provide creative, caring and *morally* courageous models of heroic choices and heroic lives—choices based on personal standards and personal integrity, and lives demonstrating self-actualization and social responsibility.

Meet children's needs. Aggressive impulses arise from frustration and hurt. Perhaps our high level of aggression reflects a systemic failure to meet the human needs of our citizenry. If we teach communication skills, we will learn more what children want and need, and we must then respond to the needs identified with better human systems.

Self-expression is one basic need, and violence provides expression of feelings which are ordinarily constrained and often pent-up. If kids are taught to express their feelings regularly and non-destructively, how to listen to each other, and how to respect each other's rights and needs, the factors motivating and rewarding violence will be greatly reduced.

Provide more warmth and recognition. These too are basic needs. An important study of 400 cultures found that generosity of physical touch in infancy was the best predictor differentiating the most violent from the least violent cultures. Touch is a fundamental mammalian need through which animals are tamed and without which human babies simply die. Its later derivative—recognition—is essential to psychological wellbeing. We are a notoriously non-touching society, and a society which reserves appreciation and recognition for high achievement rather than everyday emotional currency. We should relax our stinginess with "strokes," which are a child's principal external source of self-esteem—an important protective factor—and a caretaking adult's principal means of influence.

In Summary

Mr. Biden's legislation needs expansion to include prevention. Primary prevention should start early and continue throughout childhood while basic habits of expression, relating, and problem-solving are being established. Secondary prevention should be included in every violence intervention. Both should involve peer interaction and role modeling by mature adults. Primary prevention programs should include parents, but need to be school-based since schools alone are in a position to provide ongoing programs to all kids in a community, to notice problem behaviors in a "standardized" environment, and to provide timely, professional interventions. All programs should engage the community and include community support. Any effective strategy to reduce violence toward women in America must provide adequate funding for school-based prevention and intervention, and for intensive communication and self-awareness training for both offenders and victims.

Jack W. Dresser, Ph.D. is a senior research psychologist at Integrated Research Services. Following 20 years of practice as a child and family therapist, he has developed, administered and evaluated substance abuse prevention and intervention programs for the past 12 years. Dr. Dresser has presented prevention research findings to conferences of the American Psychological Association, has developed multi-cultural prevention curricula, and has consulted with the United Nations on prevention program development in the Asian-Pacific region.

1994 CALENDAR

DATE	LOCATION	TITLE	SPONSOR
May 21-26	Philadelphia, PA	147th Annual Meeting	American Psychiatric Association
May 23-27	Keystone, CO	Windows of Opportunity: 22nd Annual Child Abuse and Neglect Symposium	C. Henry Kempe National Center for the Prevention of Child Abuse and Neglect
June 5-9	Eau Claire, WI	Tenth Annual Conference	National Rural Institute on Alcohol and Drug Abuse
June 6-9	San Diego, CA	Celebrating Prevention and Recovery—Individuals and Communities	National Association of State Alcohol and Drug Abuse Directors/National Prevention Network
June 6-10	Scottsdale, AZ	Basic Training for Child Abuse Prosecutors	American Prosecutors Research Institute
June 7-9	Kansas City, KS	1994 USDE Regional Dissemination Conference	Southwest Regional Center for Drug-Free Schools and Communities
July 1-6	New Orleans, LA	Public Education is a Public Trust	National Education Association
July 12-15	Cambridge, MA	Clinical Technologies: Information Systems to Improve Outcomes in Mental Health & Social Services	Albert Trieschman Center
July 13-16	San Diego, CA	NAADC 94	National Association of Alcoholism and Drug Abuse Counselors
July 18-20	Washington, DC	Resource Link 3	Resource Center for the Prevention of Perinatal Abuse of Alcoholism and Drug Abuse counselors
July 24-27	Nashville, TN	57th Annual Conference	National Council of Juvenile and Family Court Judges
August 1-5	Kansas City, MO	Basic Training for Child Abuse Prosecutors	American Prosecutors Research Institute
August 12-16	Los Angeles, CA	National Conference	American Psychological Association
Sept. 20-23	New Orleans, LA	Remembering Our Past Building for the Future	National Association of Community Action Agencies
Oct. 6-8	Seattle, WA	Partners for Excellence: Making the Connections for Children	National Black Child Development Institute
Oct. 19-22	Nashville, TN	Meeting of the Profession	National Association of Social Workers
Oct. 20-23	Washington, DC	The 1994 Prevention Training Institute: Sharing What Works	American Counseling Association/ National Mental Health Association
Oct. 24-26	Albuquerque, NM	First Annual Southwestern Conference on Violence and Substance Abuse	University of New Mexico Alcohol and Drug Abuse Studies Program
Oct. 30-Nov.3	Washington, DC	Public Health & Diversity: Opportunities for Equity	American Public Health Association
Nov. 6-9	Albuquerque, NM	Annual Southwestern Conference on Violence and Substance Abuse	University of New Mexico Alcohol and Drug Abuse Studies Program
Nov. 16-19	Rockville, MD	High Risk Youth	National Organization on Adolescent Pregnancy, Parenting and Prevention
Nov. 17-21	Boston, MA	23rd EAPA Annual Conference	Employee Assistance Professionals Association
Nov. 30-Dec. 4	Atlanta, GA	NAEYC Annual Conference	National Association for the Education of Young Children
Dec. 1-3	Washington, DC	Seventh Annual Conference on Drug-Free Schools & Communities	U.S. Department of Education

Please feel free to share this calendar or fax it to a colleague.
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THE PREVENTION RESEARCHER NEWSLETTER

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GANGS, DRUGS, & VIOLENCE

By Joan Moore, Ph.D.

What are Gangs?

Popular associations for the term "gang" range from the "West Side Story" image of a group of kids whose members are aggressive and rebellious—but appealing—to the "gangster" image of a highly disciplined criminal organization with elaborate networks of "soldiers" under strict control from the top. Both images appear almost interchangeably in the media. Recently, a confusing blend of the two has been purveyed—the gang as an organized drug enterprise staffed by unpredictably violent young people. Neither image recognizes any variations in gangs: The implication is that if you have a gang in your home town it is or soon will be like the stereotype.

> Variations in community characteristics affect variations in gang behavior.

Of course, formal law enforcement definitions of a gang concentrate on criminality. Social scientists who use police records must live with the police definition of "gang" and the sometimes erroneous police identification of individuals as gang members. In some jurisdictions, they must also deal with the fact that police records confound individual and gang criminal activity.

Most social scientists who study gang violence have made some effort to delineate the characteristics of the gang beyond simple stereotypes. The most important typology was that developed by Cloward and Ohlin in 1960, and it did allow for variation and, quite explicitly, for drugs and for violence. Their basic concern with community variation was an important breakthrough. They distinguished three types of gangs—criminal, violent, and retreatist—each in a special kind of lower class community. All three types of gangs arise from disparities between aspirations and opportunities in poor communities. Therefore, the local opportunity structure comes to be of prime importance in determining which of these three subcultures will emerge.

Cloward and Ohlin were among the first to argue that variations in community characteristics affect variations in gang behavior. It remains an extremely important argument, and one that tends to get lost in contemporary research. If we are really interested in clarifying the connections between gangs, drugs, and violence, it is time to develop this typology further, and begin to look at new variables—both with regard to the community and with regard to gang behavior.

Los Angeles Chicano Gangs

The Chicano gangs that we studied in East Los Angeles in the late 1980s generally started out in the 1930s and 1940s as friendship groups of adolescents who shared common interests. There was a more or less clearly defined territory in which most of the members lived. The members were committed to

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FROM THE EDITOR'S P.C.

Dear Colleagues:

I am pleased to send along our second issue of the Prevention Researcher newsletter. Responses from our first issue on violence toward women were very positive, with many readers sending in comments about the issue. We appreciate this feedback so we can continue to publish a strong, informative, and timely newsletter.

This issue focuses on preventing youth gang violence and includes articles on this important community problem by experts in the field. Dr. Joan Moore, a professor of sociology and author from the University of Wisconsin-Milwaukee, questions our stereotypes about gangs. Jimmy Brown, supervisor of the Gang Resource Intervention Team (GRIT) in Multnomah County, Oregon offers us a hands-on perspective on gang intervention at the community level. Dr. Jack Dresser, a noted prevention researcher and psychologist, suggests bonding as a key to youth violence prevention.

I hope you continue to enjoy the Prevention Researcher and send us your comments.

Have a great Autumn.

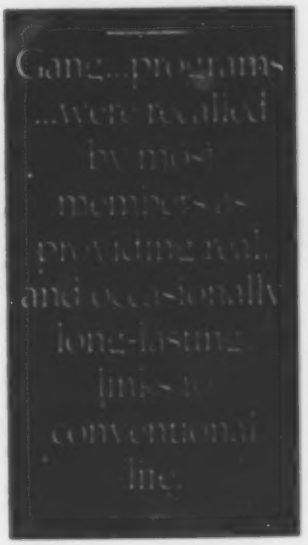
Steven Ungerleider, Ph.D.
Psychologist/Editor

defending one another, the territory, and the gang name in the status-setting fights that occurred in school and on the streets. Their families tended to live conventionally. Although some families may have been troubled, not all were.

As members of the original clique aged, the clique began to splinter. Some of the members married and settled down, while others remained involved in a street lifestyle, often mired in drug use and finding only marginal—if any—employment between periodic spells in prison. The gangs developed an age-graded system. In these gangs, each clique was fairly self-contained, with not much association between older and younger cliques (although this seems to be changing). In our study, we interviewed 25 percent probability samples of 8 male and affiliated female cliques in two long-standing gangs, for a total of 157 respondents.

These gangs are at their peak in adolescence. They had the reputation of being—and usually were—the roughest, the most drug using, and the most sexually active among adolescent peer groups in the community. There is violence inherent in some of the gang processes. But they *were* adolescent groups, not units in a massively organized crime syndicate. Apart from gang fighting, graffiti, and occasional forays into vandalism, which are gang activities, delinquency—including drug dealing—was a matter of individual or pair activity, not an activity of the gang as a whole.

Over time, these gangs continued to be marginally salient to a fraction of employed and married young adults who, for a few years, kept on "going down to the neighborhood" to hang out with the homeboys on weekends or after work. For many, these ties tended to dissolve over time, especially after children were born. But gang ties remained very important in adulthood for those members who became seriously involved in drugs or were imprisoned.



Gang Violence

Adolescent gang violence needs to be distinguished from adult and individual violence by gang members. Violence among adult ex-gang members tends to be intense in prison, with prisoners replicating the gang affiliations and gang battles of adolescence. Gang members also kill and are killed during adulthood in the course of individual criminal activity, often drug-related, but such violence is clearly not gang-related.

Our observations suggest that gangs change. Some of these changes are particularly important to the question of the kind of violence that is uniquely and distinctively gang-related—that violence which stems from fights between rival gangs during adolescence.

In East Los Angeles, gang warfare became increasingly lethal into the 1970s. The general escalation of violence also may have been related psychopharmacologically to drug use within the gang; there was increased polydrug use and more use of drugs like barbiturates and PCP, which have been found to be associated with violence. However, it is important to note that within this general escalation of violence, there was substantial inter-clique variation. Most of this variation was related to elements of the gang subculture, like the clique's emphasis on and definition of *locura* (or wildness), and to the increasing reliance on street socialization over the years. In some cliques, *locura* was defined in violent terms, but in others, even in gangs with a long history of violence, *locura* came to be defined more in terms of drug experimentation than of violence, and the cliques were quite peaceful.

After a decade or more of escalation, the level of lethal inter-gang violence in East Los Angeles began to decline sharply in the 1980s. Why? One possible explanation has important prevention implications.

Interventions. In the 1970s, during the peak of gang violence, East Los Angeles saw one gang program after another disappear. Such programs—usually community-based—were recalled by most members as providing real, and occasionally long-lasting, links to conventional life. As those programs disappeared, the gangs were increasingly left to themselves—and to the

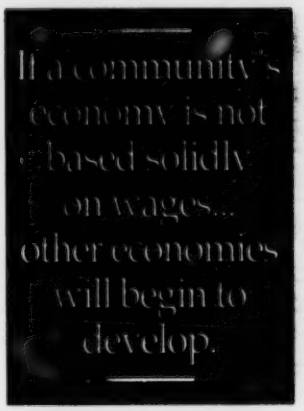
police. Yet in the 1980s, a program funded by the California Youth Authority began to hire gang members in East Los Angeles to mediate and reduce the violence, on a gang-by-gang basis. A number of respondents in our East Los Angeles study felt that this program not only effectively reduced violence, but also had an even broader effect: in addition to their mediating functions, the gang-member workers provided a continuous link with conventional life in the community and a continuing reminder that there was a different way of doing things.

Gang Variability vs. Stereotypes

Gangs are difficult to stereotype. If gangs differ from one time to another, it is obvious that they differ from one place to another and from one ethnic group to another. Gangs appear in distinct "culture areas," and these culture areas differ from one ethnic group to another, even within the same city. They also differ from one city to another within the same ethnic group.

Gangs are uniformly stereotyped as violent, but in fact there are wide variations in gang violence. For example, during the 1970s, deaths from gang violence were very high among Hispanics in both Los Angeles and Chicago, but were low among African-Americans in both cities. More recently, the reverse was true in Los Angeles, and Chicago seemed to be going through a similar transformation. Whatever happened to gangs in these two cities occurred differently in African-American and Hispanic communities.

Furthermore, what little comparative research has been done on gangs shows significant differences in social structure from one culture area to another. The gangs we studied in East Los Angeles are age-graded, but members very rarely "graduate" from one clique to another. They do graduate in Hispanic gangs studied in the Midwest. The East Los Angeles gangs are informally organized, without acknowledged leadership. African-American gangs studied in Los Angeles and African-American and Hispanic gangs in Milwaukee are more formally organized, with preplanned meetings, dues, and officers. Drug marketing patterns also differ sharply from one gang to another in Milwaukee. These variations also underscore the need for an empirically based taxonomy of gangs that is related to community variations. What is true for one gang is not necessarily true for another.



The second major stereotype, the tendency to attribute all behavior performed by gang members to the gang as a whole, becomes very important in untangling many of today's confusions about so-called gang violence. One of the most common interpretations of today's gang violence, for example, is that it stems from gang involvement in increasingly violent drug marketing. It has been assumed that gangs were a ready-made crack marketing unit, since they were already "organized." Police subscribed to this interpretation, and so have the media. However, Los Angeles Police Department data for 1983 to 1985 proved these assumptions to be unfounded. Cocaine drug sales did increase markedly during the period. Involvement of individuals identified as gang members in drug sales did increase slightly, but the overwhelming majority of individuals arrested by police in these five South Central Los Angeles stations (75 percent) were not gang members. Most important, perhaps, was that when gang members were involved in cocaine sales, the transactions were not more likely to involve violence or even the use of guns.

A similar misleading media connection was made in Miami between gang activity and crack dealing. But Miami grand juries empaneled in 1985 and again in 1988 (after a substantial increase in the number of gangs) found that youth gangs were not involved in crack dealing. In at least two cities (Detroit and New York) research on crack-dealing organizations found that, although these organizations call themselves gangs, they did not grow out of youth gangs. According to recent evidence, crack dealing almost invariably involves violence; dealers threaten both each other and the community. But the role of gangs in the crack economy clearly varies from one community to another.

The Economic Variable

There may be an alternative explanation for the proliferation of gangs in the 1980s, just as there is for the upsurge in illegal drug marketing—gang and non-gang—in these communities. If a community's economy is not based solidly on wages and salaries, other economies will begin to develop. Welfare, bartering, informal economic arrangements, and illegal economies become substitutes—simply because people must find a way to live. Research on gangs should take economic factors into account. In addition, ethnicity and other subcultural variations should be recognized. As part of this, variations in gang social structure and in gang values about violence and the gang's role in the neighborhood should be included as variables affecting the extent to which gangs may become involved in violent drug dealing. Most important, perhaps, we should recognize the importance of variation between individuals in the gang. Some will grow out of the gang with little difficulty. Others may enjoy the street life to the fullest, while many yearn for a more conventional life but have no idea how to get there.

Joan Moore, Ph.D. is Distinguished Professor of Sociology at the University of Wisconsin-Milwaukee. She is the author of two books on gangs and several books on Latinos and poverty. The present paper has been condensed and updated from her 1990 NIDA research monograph entitled "Gangs, Drugs, and Violence."

ONE CITY'S RESPONSE TO YOUTH GANGS

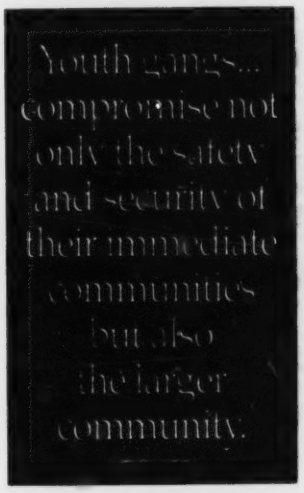
By Jimmy Brown

Portland, the largest city in Oregon with a population of 485,000, has experienced an increasing and unacceptable level of weapons-related violence involving young people in recent years. Some of this violence is related to the development of youth gangs.

In the summer of 1986, Portland experienced the beginning of a new era in troubling youth activity. "Youth gangs," long established in other areas of the United States and previously viewed here as a Los Angeles phenomenon, brought to Portland youth activity never before seen. Drive-by shootings, gang graffiti, "colors," crack cocaine, and LA gang trademarks began to appear increasingly in Portland. In response, the community has developed methods to mobilize community residents, combat negative group interaction, and create meaningful partnerships between public agencies, private industry and community-based organizations (CBOs).

From the police and media perspective, there was a gang migration from Southern California along the I-5 corridor north to Portland, Tacoma and Seattle. The purpose of this migration, in their view, was to open new territory for the sale of crack cocaine and to escape suppression by California's law enforcement community. This reflects two similar gang models, both widely discussed and largely accepted by the public: a "crack marketing franchise" model which assumes a network of economic connections and supply lines, and a "mafia family" model which presupposes a high degree of organization and central control.

However, neither of these models has been supported by our 5-year experience in working and talking with gang immigrants to Oregon. While many documented gang members from the dominant gangs in Southern California—the "Bloods" and "Crips"—began to show up in arrest situations throughout the Northwest, they generally attribute their migration to individual motives just to "get out of LA." Although these youth have brought some bad living habits with them, they do not appear to represent an organized criminal enterprise.



The Community's Response

This encroachment has dramatically impacted three separate interest groups, between which rapport has not always been optimal.

Law enforcement was the first to respond, initially following a traditional approach of suppression. They believed that, through the use of police intelligence methods, resource mobilization (e.g., increased patrols), and drug suppression tactics, the problem of gangs could be stopped before it had an opportunity to take root.

Community residents noted with increasing alarm an increase in street drug sales, visible assaultive behaviors by young people in "roving" packs over the colors of clothing worn by neighborhood youth, graffiti in parks and schools, and statements from young people that gang members from Southern California were in fact "recruiting." The community response followed a grass roots approach, creating new CBO's and a variety of programs which have been central to our success.

The *political structure* was much slower to acknowledge the problem. Despite evidence from the law enforcement community, juvenile probation counselors, prosecutors, educators, community residents and young people themselves, its initial denial was well illustrated in a local politician's 1987 statement, "we can't have gangs here...this isn't Los Angeles."

Finally, a drive-by shooting in August, 1989 near a large housing project, which killed a known youth gang leader, seemed to provide the necessary "critical mass" for our city and county leadership to acknowledge that indeed a problem existed. Intense national media attention to gangs during this period no doubt facilitated this recognition as well. Although community residents, police, and political leadership had often viewed each other with suspicion, this event generated a common denominator of concern between them which led to joint commitments and integrated community action.

A Community Systems Model

Since 1989, the community has mobilized and developed a comprehensive effort to reduce gang crime and violence. We followed a model developed by Dr. Irving Spergel and his associates at the University of Chicago's School of Social Service Administration, which was part of the National Youth Gang Suppression and Intervention Program funded by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) within the U.S. Department of Justice. This model emphasizes refocusing and re-organization of existing resources to provide alternative relationships and experiences to at-risk youth. Accordingly, city and county agencies, both public and private, initiated a "community mobilization" approach to dealing with youth gangs in three domains: the justice system (police, prosecutors, corrections); human services organizations (CBOs, foun-

dations) as well as grass roots groups including local residents, parents, churches and the faith community, and former gang members; and the political leadership which sanctioned and supported the refocusing of public resources.

A key belief in the Spergel model is that youth gangs, especially those that commit serious assaults and are involved in criminal conduct on a regular basis, compromise not only the safety and security of their immediate communities but also the larger community. Upon this premise, established governmental and non-profit agencies, coupled with grass roots groups, are motivated to assume leadership in reducing gang problems. This optimally results in an integration of concerns, resources, and planning across local, state and federal jurisdictions. A wide cross-section of interests representing various governmental agencies, non-profit CBOs, and local community groups must be involved in recognizing and defining the problem, organizing and planning to address it, implementing and sustaining the process, and evaluating the efficiency and effectiveness of programs that come forth as a result. Community mobilization begins with a process of consciousness-raising, then addresses the concerns and long term interests of those most impacted by the problem. This includes clearly defining the specifics and depth of the problem, and developing a commitment to action by neighborhood residents, police, politicians, educators, youth and the business community. *It is important to recognize that community mobilization as a process does not usually develop spontaneously.* We feel that Portland's bottom-up process, driven by the concern of community residents and utilizing their energy and their grass roots organizations, contributed significantly to the results we have achieved. In Portland, the elements for this activism were well rooted in a 20-year commitment to citizen-based neighborhood processes through the city's Neighborhood Associations, a history of public and private partnerships which have brought business, government and non-profit sectors together, and a commitment to Community Policing. All led the way for the integrated support necessary for success.

Elements of the Model

Following Spergel's research-based community mobilization approach to youth gangs, it was determined that the model should incorporate suppression (police, prosecution, corrections), social intervention, opportunities provision, and organizational change and development. Gang enforcement units were created (e.g., the Portland Police Bureau's Gang Enforcement Team, the Multnomah County Sheriff's Safety Action Team, the State of Oregon Youth Gang Strike Force, the Portland School Police Response Action Team, and the Public Transportation TRI-MET Policing Unit), representing a multi-jurisdictional approach to the problem. Also partnered in this activity was the U.S. Attorney's Federal Gang Prosecution Unit and Multnomah County District Attorney's Gang Prosecution Unit.

Multnomah County Juvenile Justice Division's Gang Resource Intervention Team (GRIT), has become a central link in the provision of services to gang involved youth and their families. The GRIT Unit was formed in November, 1989 as part of a $57,000 funding package from the Oregon Criminal Justice Planning Office. Its functions have been:

- To improve internal and external communication between Juvenile Justice Division units and law enforcement regarding youth gang members under the Court's jurisdiction; this has included co-locating juvenile probation and police personnel and creating probation files available to police, which has worked well;
- To implement gang intervention strategies, programs and activities, particularly in conjunction with those law enforcement agencies charged with impacting the gang population; intervention strategies have included (1) pre-employment training and arranging OJT placements in cooperation with local business, (2) developing an alternative school within the Division with funding from the Portland School District, and (3) developing weekend and summer recreation programs which incorporate prosocial "alternative" activities, social skills and anger management training, and self-esteem enhancement methods;
- To develop coordinated services and intervention plans for all youth on probation that are gang specific and focus on decreasing involvement in illegal gang activities and behavior; these plans focus on the specific behavior which resulted in probation, and emphasize accountability, increasing competency, and social skill development; and
- To develop and implement gang-specific intervention curricula that focus on reducing gang involvement and recruitment, and provide alternatives to gang involvement; these include anger management, pre-employment, self-esteem, and coping skills curricula for use in a variety of our programs.

The model should incorporate suppression, ...social intervention, opportunities provision, and organizational change.

GRIT is composed of ten Juvenile Court counselors, an office assistant, and a supervisor. The unit currently provides services to approximately 225 gang involved youth, 12-18 years of age. Some 90% of the clients are under jurisdiction of the Juvenile Court for felony person crimes. Most (85%) of the clients are male, and the average age is 14.5 years. Since 1989, GRIT has developed a multi-faceted services model and has assisted in the creation of a number of grass roots CBOs which provide social skills development, employment and job training, recreation services, alternative education, parent training, and gang awareness training.

The community mobilization model has both expanded

existing services and generated new community organizations and programs. One such new service provides youth advocacy, program development and resource generation for gang-involved youth. Another provides outreach activities to gang-impacted youth and their families, using street-level outreach workers with those most in need. Another program was expanded to provide prevention services for at-risk youth. This program focuses on self-esteem building, educational enrichment and recreation activities, and has also spurred the development of new mentoring services utilizing African-American males as role models and service advocates. As a result of community activism, a residential program for gang-involved teens was created utilizing a mix of public and private philanthropic funds. Alternative education services at the grass roots level have also evolved out of community involvement. The community most impacted by gang activity generated a blueprint for action that delineates service needs, system development and a conceptual approach to the delivery of services for gang involved and other at-risk youth. These organizations provide positive social activities, job training and employment, self-esteem building, and alternative education, emphasizing responsibility and accountability.

Results and Implications

As a result of program efforts established through the community mobilization model, Multnomah County's Juvenile Justice Division experienced a decline in the number of GRIT-targeted young men committed to the State Juvenile Corrections System, from 35% of all juveniles committed in 1991 to 22% in 1993. Approximately 85% of cases submitted to the GRIT unit have successfully completed probation without referral to the State Juvenile Corrections System. Over 65% of all youth referred to skill development activities (e.g., violence prevention, conflict management, anger management, drug and alcohol treatment) since 1990 have completed their program service. Further, one community-based employment development program reports that since its inception in 1992, 300 young men and women have obtained entry-level, private sector jobs.

Although Portland has become a national model in its gang intervention and prevention services, there yet remains a tremendous amount of work ahead to educate the public, parents and young people. Gang activity has erupted in suburban and rural communities, and although not exactly mirroring their urban counterparts, the impact is nonetheless highly disturbing and sometimes devastating for those experiencing the activity firsthand. It is clear that if communities are to withstand the pressures created by gang activity, partnerships involving CBOs, governmental jurisdictions, grass roots citizens' groups, educators and private business must come together and create a network of intervention and prevention services.

Jimmy Brown supervises the Gang Resource Intervention Team (GRIT) within the Multnomah County Juvenile Justice Division, which serves the city of Portland, several smaller municipalities, and unincorporated areas within Oregon's most populous county. Mr. Brown received a BS degree in psychology from Lewis & Clark College in Portland.

YOUTH VIOLENCE, BONDING AND COMMUNITY

By Jack Dresser, Ph.D.

I would like to supplement the comments of our other two contributors by suggesting a core psychological issue in the origin of youth violence, an individual issue which requires a community solution. The issue is that of each child's personal identity, consisting at its root of an individual "worldview."

The Antisocial Worldview

Clinical and research evidence suggests that one's basic worldview consists of two independent dimensions: *a general view of self* interacting with *a general view of others*. Thus, high vs. low self-esteem represents the north and south of personality, while trust vs. distrust of others represents the east and west. This two-dimensional self-other model was introduced by transactional analysis some 30 years ago as "scripting" and has received considerable subsequent validation by social and behavioral science research. We form powerful, deep-seated conclusions about ourselves and the social world during our vulnerable early years, and the worldview is thus formed and fired in the crucible of childhood. The worldview is deeply *emotional*, consisting of good or bad feelings about oneself and good or bad feelings about other people which become the foundation stones of one's expectations and strategies in life. An *antisocial* worldview, which can later provide a basis for peer bonding in adolescent groups and gangs, is often expressed through delinquency, crime and violence. How does this develop?

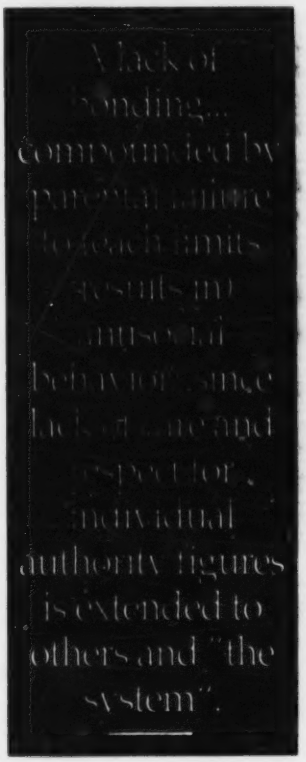
Since parent figures are the first and most formative other people in life, child abuse and neglect are conditions most likely to produce distrust and hostility, a generalized pessimism toward others, and a corresponding lack of care and concern for them—a lack of bonding. When this is compounded

by parental failure to teach limits, antisocial behavior is the expectable result since lack of care and respect for individual authority figures is extended to others and "the system" in general. It is therefore not surprising that the delinquency prevention programs with the best-documented success uniformly include intervention at early ages, with intensive parent involvement and training.

Needs of Gang-involved Youth

Gangs (and other difficult adolescent subcultures) meet precisely these two areas of need for their members—for both self-esteem and bonding—which have not been met by rewarding family and school experiences. Gangs are defined as specifically *antisocial* adolescent clubs, with *lack of bonding* with parents and authority serving as a common basis of *peer bonding*. Members (at least nowadays) typically come from "dysfunctional" families and display low self-esteem and lack of attachment both to school—the workplace of childhood—and to conventional occupational goals. The latter appears to be a key problem. It reflects feelings of "hopelessness and helplessness" (which also characterize clinical depression), and it is an area which can and should be addressed in gang prevention programs. It has historical origins which are central to inner-city problems.

Lack of workforce bonding. In his 1980 presidential address to the American Sociological Association, William Julius Wilson stressed "weak labor force attachment" and lack of "rational organization" as core sources of the problems among inner-city youth, which must be addressed by attending to the entire "social milieu" and its "transmission of beliefs." A mature work ethic involves *standards*, where one works not just to acquire money for self-indulgence or exhibitionism, but as expression of an honorable and productive self-image, a concept of reciprocity (work performed for benefits received), and a motive to contribute to one's community. These work standards are reinforced by the satisfactions of accomplishment and recognition from the community standard setters—hopefully mature adults. As the S&L scandal suggests, this erosion of a mature work ethic is widespread in our culture and not limited to the inner city. These are subtle and far-reaching psychological attitudes which can be acquired only through ongoing psychological contact and identification with grown-up role models, not from isolated programs or school curricula alone. Gang prevention programs must provide stable and regular adult-child relationships of this kind, which can provide a "psychological conduit" between at-risk kids and the larger world of multiple options, roles and opportunities.


A lack of bonding... compounded by parental failure to teach limits results in antisocial behavior since lack of care and respect for individual authority figures is extended to others and "the system".

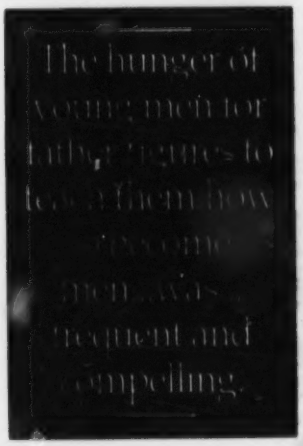
Fatherlessness. In his 1987 book, *The Truly Disadvantaged*, Dr. Wilson attributes this erosion of the work ethic to loss of inner city industrial employment and a consequent disappearance of heterogeneous, socialized and well-functioning father figures/role models from these communities. Nicholas Lemann in *The Promised Land* further relates this to suburban flight of the African-American middle class, which has left an increasingly homogeneous and dysfunctional inner city population. Children clearly need mature examples of both genders, and gang prevention programs must provide abundant contact with such role models. In my own work in offender programs with African-American and Hispanic teens and young adults in trouble, the hunger of young men for father figures to teach them how to become men—to teach them the routes and rites of passage—was the single most frequent and compelling need I saw.

Routes and rites of passage. In human societies, the elders ordinarily define the standards of admission to adult status and prescribe the rites of passage. Such rites are not absent in our society, but involve complex, extended and progressively selective routes: "graduations" which require meeting successive and increasingly demanding educational criteria. In the absence of mature adults to model, encourage and support patient and disciplined commitment to these long-range passages, youth prescribe their own simpler, quicker, and more dramatic rites of passage, displaying courage and achieving peer bonding through drug and alcohol use, immature sexuality, and confrontational, aggressive, and sometimes criminal risk taking. Gang prevention programs must provide new, prosocial standards and rites of passage, and build into kids the necessary personal resources (attitudes, expectations, and skills) to find and pursue the many routes available in American society.

A Community Solution

Only through a community approach can these widespread, fundamental, unmet needs of at-risk youth be adequately addressed, and prosocial worldviews introduced and integrated into the everyday culture. Peer programs are an important part of such a community program, especially as an initial bridge to bonding of alienated kids with more conventional goals and values. Ultimately, however, youth everywhere must be raised not by each other but by a *community of elders*. In communities where nuclear and extended families do not fulfill this function, an effective approach must include extensive and intensive mentoring. There must also be a consistency of messages, role

models, and institutional systems within each community. Mom, dad, grandma, teacher, principal, social worker, coach, police officer, convenience store clerk, and big brothers and sisters all need to coordinate their ideas and efforts. Alcohol cannot be OK to use at home and easily purchased at mini-marts by minors while forbidden at school. A community which tolerates children on the street during school hours is enabling self-destruction. And playground fights can no longer be smiled upon as an innocent and passing phase of childhood. Rather, communities must systematically teach anger management and conflict resolution in each "teachable moment" which arises in living rooms, parking lots, and classrooms.



Dr. Moore emphasizes variability of gangs between communities, suggesting an ecological function served by gangs. This suggests that gang programs need to be community-specific and need to provide alternative ecological benefits. She also emphasizes heterogeneity among gang members. Which members will outgrow the gang and which will remain "stuck" in aimless adolescent hanging-out or impulsive adolescent acting-out? Which will only behave antisocially during an elevated risk period, and which will remain antisocial into their adult years? Which will behave violently? We may need different programs for different types of gang members, who are far from identical and reflect a range of developmental levels and needs. Those with less antisocial worldviews represent a potential resource, and their influence can be encouraged and their leadership supported. The apparent value of 1970s gang programs in promoting bonding with the wider society and conventional life, as described by Dr. Moore, and the early success of the Portland community model, argue strongly for a comprehensive, community-based prevention and intervention approach.

Jack Dresser, Ph.D. is a senior research psychologist at Integrated Research Services, where he has conducted several federally funded prevention and intervention program development and evaluation projects. Following 20 years of child and family therapy practice, he also developed and administered a variety of successful drug and DUI offender programs in minority communities, and has consulted with the United Nations on drug demand reduction.

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The PREVENTION RESEARCHER

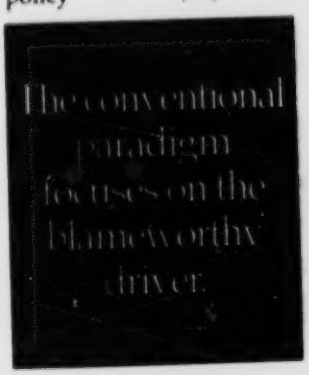
A service division of Integrated Research Services

CONFRONTING DRUNK DRIVING

By H. Laurence Ross, Ph.D.

Paradigms of Drunk Driving

Paradigms are intellectual models of the world around us, simplifications which serve as aids to understanding, not literal representations of reality. The paradigms according to which social problems are understood have policy implications, and criticism of policy often involves questioning the underlying paradigm.



Elements of the models of drunk driving which I refer to as "dominant" (conventional) and "challenging" (alternative) paradigms have both been present in discussions of traffic safety for several decades. The paradigms differ in their understandings of the nature, size, and causes of the problem, and in their implications for policy.

The dominant paradigm

The dominant paradigm focuses on the blameworthy driver. This driver is dangerous, and the danger is realized in the form of death and injury. The villain is the "killer drunk," who not only has an extraordinarily high blood alcohol content (BAC); but is also extremely and obviously impaired. Moreover, this driver has a long history of prior crashes and of previous contact with an ineffective legal system.

Rather than conceiving of danger as inherent in all drinking and driving, the dominant paradigm understands there to be a safe drinking level for driving, differentiated from "drunk" driving. The distinction is fundamental, dividing the massive numbers of ordinary, conventional, good people who drink socially and then drive from a small proportion of bad, blameworthy deviants who drink and drive irresponsibly.

The dominant paradigm also presumes the presence of an innocent victim in alcohol-related crashes, viewed as a nondrinker. The victim is understood not to be involved in causing the crash.

With drunk driving attributed to a small, culpable minority of irresponsible individuals, the problem is a matter that can and should be dealt with by the criminal law. The punishment administered is not only seen as justified, but is also believed

FROM THE EDITOR'S P.C.

Dear Colleagues:

Well, here we are! It is Spring and time for our newsletter to arrive on your desk. This is the third issue of the Prevention Researcher.

This issue focuses on drinking driving countermeasures. I am extremely pleased that Washington, D.C. Attorney Marc Chafetz and a prominent sociologist, Professor Larry Ross of the University of New Mexico, have written two excellent pieces regarding state-of-the-art research in the prevention of drinking and driving episodes. In addition, Dr. Jack Dresser of Integrated Research has summarized some of the important research with regard to drinking and driving intervention strategies.

Even though drinking and driving continues to be a serious public health risk, we know that important prevention efforts have been put in place to impact these potential tragedies. As the father of two teenagers (who are about to obtain drivers' licenses), this is an issue that is dear to my heart.

I hope you continue to enjoy and benefit from our Prevention Researcher. *It is our intent to release three issues a year to an approximate circulation of 30,000 in the health and human services professions. Once again, we welcome your comments and feedback.*

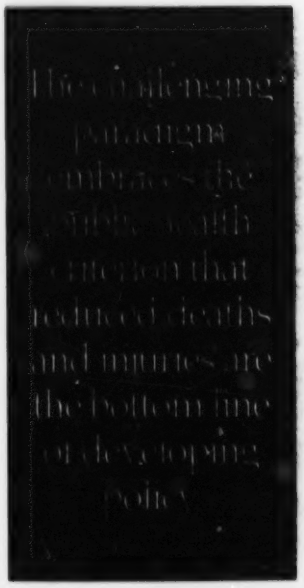
Have a wonderful and safe Spring!!!

Steven Ungerleider, Ph.D.
Psychologist/Editor

capable of reducing further criminality.

However, this paradigm experiences difficulty in accounting for several kinds of empirical data:

First, although the bulk of serious alcohol-related crashes involve drivers with high BACs, these drivers seldom fit the image of the killer drunk. Their impairment, while dangerous, is often hard to detect in their behavior, even when examined by experts. Most lack prior convictions for drunk driving. Beyond this, no qualitative distinctions can be found in practice between impaired and unimpaired drivers who drink. An increase in crash risk begins at the lowest detectable BACs, and it rises progressively and geometrically as BACs rise. At BACs produced by normative, or "social" drinking, the risk of fatal crashes doubles and quadruples, resulting in large numbers of fatal crashes in which alcohol impairment is involved and even causal, though not illegal. Of course, much higher multiples of crash risk occur for heavier drinking.


The challenging paradigm embraces the public health criterion that reduced deaths and injuries are the bottom line of developing policy.

Second, the typical victim in drunk driving crashes is the driver. About two-thirds of all people killed in alcohol-involved crashes are drivers with BACs of 0.10% and higher. Another fifth are passengers in the drunk driver's car, whose BACs are generally similar to that of the driver. Another tenth are alcohol-impaired pedestrians and cyclists struck by motor vehicles.

Third, drunk driving is not as deviant as the conventional paradigm suggests. Drinking to the point of significant impairment for driving a vehicle is socially accepted in America, and drinking to BACs that yield extraordinary multiples of serious crash risk is tolerated and even expected in particular social strata. The dominant stereotype of drunk drivers does not fit the majority of drivers impaired by alcohol, including those in serious crashes. The typification implies a high probability of serious injury resulting from every event of drunk driving. However, comparison of the number of alcohol-related fatalities with the estimated number of miles driven by drivers with BACs over 0.10 percent finds less than one fatality for every six hundred thousand impaired miles driven. Further, large proportions of drinkers admit in interviews to having driven after drinking in the recent past and expect to do so in the future.

The challenging paradigm

In the challenging paradigm, drunk driving is an understandable, predictable product of social institutions, reinforced by interests vested in their maintenance. The institutions in question are recreation and transportation, which assume drinking and driving, respectively. The intersection of these institutions produces drunk driving. The challenging paradigm recognizes that heavy drinkers are at the core of the problem but that they are not the only ones in that position. It does not accept a fundamental distinction between the safe and the dangerous. No significant amount of drinking can be termed responsible for someone who intends to drive. What is more, the norms that lead to much heavy drinking, though damaging, are not necessarily perverse or deviant.

The challenging paradigm also embraces the public health criterion that reduced deaths and injuries are the bottom line of developing policy. Righting the moral balance of the world, or securing justice, is not the central concern in the paradigm. Policies based on increasing the severity of punishment for drunk drivers have seldom been found effective and are regarded with skepticism in this paradigm, whereas those emphasizing certainty and swiftness of punishment are regarded as promising.

The challenging paradigm draws on the disillusionment of social scientists with the results of criminal punishment, with respect not only to drunk driving but also to more conventionally imaged crimes such as robbery and assault. In general, the various punishments experienced by criminals cannot be shown to have changed these offenders and to have reduced their

subsequent law violations. Moreover, for many crimes, including serious drunk driving, most damage is inflicted by people who have not previously been caught and who therefore could not have experienced criminal sanctions.

There is growing evidence that policies other than those based in criminal justice, operating through mechanisms other than deterrence, can be effective in reducing problematic behavior. Many of the successful interventions have a common basis in a sociological understanding of the causes of the problem behavior. They are directed to reducing the situational inducements and incentives to engage in the prohibited behavior.

Estimates of the actual chance of apprehension for a drunk driver in America are one chance or less in one thousand occasions.

Deterrence and Prevention: Some Recommendations

There is little evidence that criminal punishment can produce special deterrence of convicted drunk drivers. The literature on the effects of jail sentences contains no support for expectations of special deterrence. Indeed, some studies have found that more punitive sentences were associated with worse subsequent safety records. The multistate literature includes one study supporting the claim of a deterrent effect for jail, but two finding no support. All but one of the case studies on jailing policies are negative.

The overall negative findings on the deterrent effects of severe punishment contradict intuition. I believe that the most plausible reason for the inability of jail threats to deter drunk drivers lies in the very small actual and perceived chances of being caught. Estimates of the actual chance of apprehension for a drunk driver in America are on the order of one chance or less in one thousand occasions or five thousand impaired miles driven. Although surveys suggest that the risk perceived by the public is considerably (and unrealistically) higher, it may still not be high enough for would-be drunk drivers to take the threat seriously.

Recommendations based in law and criminal justice

One lesson of the deterrence literature is that increments in severity of threatened punishment beyond levels currently prevailing are most unlikely to achieve substantial and long-lasting decreases in drunk driving.

The most promising criminal justice area for further reducing drunk driving lies in increasing the public's perception that swift and sure punishment is meted out for law violations. The objective probability of apprehension can be increased in a variety of ways, including use of sobriety checkpoints at roadblocks, along with more traditional patrol methods such as looking for traffic violations in the vicinity of taverns. The Australian experience of Random Breath Testing programs shows that if intensive police activity is maintained, permanent reductions in drunk driving may occur. Moreover, criminological theory suggests that such efforts over time may permanently affect the public's judgements concerning the acceptability of drinking and driving, thus building constraints against it into social norms and personal values. The monetary cost of increased police patrol can be avoided by designating a portion of the income from fines to be returned to the criminal justice system.

The most promising criminal justice area for further reducing drunk driving lies in increasing the public's perception that *swift* and *sure* punishment is meted out for law violations.

The swiftness as well as the certainty of punishment for drunk drivers can be increased through the use of *noncriminal* sanctioning procedures. Administrative suspension or revocation of licenses is practiced by most states, and research supports the potential of this procedure to reduce the recidivism of sanctioned drivers and to deter others. Most such statutes permit the police to take the driver's license at the scene of a failed or refused breath test, replacing it with a temporary permit to drive for a limited number of days.

A principal problem with administrative suspension or revocation laws is their weak tie to concurrent criminal prosecution, given the different standards of proof in the criminal and administrative systems. To remedy this problem, I recommend that in routine cases the administrative system be substituted in full for the criminal one. Routine drunk driving should be considered a serious violation of the rules of the road, sanctioned principally by license withdrawal.

If the centerpiece of sanctions for drunk drivers is to be license withdrawal, it seems reasonable to look for ways to strengthen this sanction and compel drivers' compliance with it. Most immediately practicable, and already proved in some states, are special license plates for vehicles owned by persons under suspension or revocation for drunk driving violations. The incapacitative effect of license revocation may possibly be improved by the installing of ignition interlocks to prevent vehicles from being driven by someone who has consumed alcohol. For more aggravated defiance of sanctions, such measures as vehicle impoundment and confisca-

tion and house arrest monitored by electronic devices might be effective.

Recommendations based in alcohol policy

The most effective recommendation in alcohol policy is to render alcoholic beverages more expensive by increasing excise taxes on them. This can be expected to reduce alcohol consumption by all types of drinkers, heavy as well as light, and thus drunk driving among all types of drinkers. The relationship of drinking to impaired driving varies with drinking location, and a surtax on drinks consumed in bars might be considered.

Advertising might succeed in getting people to substitute low-alcohol for high-alcohol beverages. Similarly, the area of serving practices and server training is promising. Among the most intriguing issues is whether and how the management of bars can be induced or coerced to issue and support policies restraining the sales incentives of service staff; legal liability and enforcement of control laws by administrative agencies are important possibilities, but the issue requires much more study and experience than are now available.

The fact that large proportions of teenagers continue to consume alcohol and that large (though reduced) proportions of their crash-related fatalities continue to involve impairment suggests the need for effective policies to enforce the minimum drinking age law. Research has found that under present circumstances beer is easily purchased by underage buyers. This situation might be controlled by systematic enforcement of the drinking-age laws (as well as laws prohibiting service of intoxicated people) through inspections by liquor control agencies.

Recommendations based in transportation policy

Curfews on nighttime driving by youths, perhaps subject to retraction after several months of demonstrated responsible driving (i.e., without reported crashes or violations), seem reasonable. Precedents for this policy exist in several states.

> The relationship of drinking to impaired driving varies with drinking location.

Mothers Against Drunk Driving proposes that the driver's license be granted only to those aged sixteen and older and that for youth under eighteen there be a curfew on solo driving at night until six months of citation-free driving have been accumulated. No more than one passenger would be permitted in the vehicle driven by a young person during the first twelve months of driving, unless an adult were also present. MADD would also require that, regardless of the general state law, all occupants of cars driven by young people be belted and would suspend licenses until eighteen for a drunk driving offense.

I concur with these recommendations.

The limited use of programs such as safe rides and designated drivers discourages me from strongly endorsing them. I do believe, however, that the time is ripe for a demonstration project subsidizing the use of alternative transportation (including taxis) during drinking hours, with the goal of inducing prospective drivers to arrive at as well as leave drinking establishments by means other than the automobile.

> Since drunk drivers are especially likely to go unbelted, increments in belt wearing are disproportionately beneficial in reducing alcohol-related deaths.

Recommendations based in injury control

Injury control offers a wide variety of potential interventions. Many of these promise considerable savings in lives and injuries, but with the disadvantage of having obvious, up-front costs. The highway system, for example, could absorb virtually unlimited amounts of capital investment in straightening curves, installing protective barriers, eliminating conflicting traffic streams, and so forth. Although these have been proposed without special reference to the drunk driver, they can reduce alcohol-related deaths as much or very likely more than non-alcohol-related ones.

Perhaps the most promising of recent technologies aimed at attenuating the links between impairment and deaths and injuries are passive restraints. Air bags, for example, are enormously effective in reducing deaths and injuries in frontal crashes, and they are becoming universally available.

Absent universal availability of passive restraints, mandatory seat belt use laws are called for. In the United States, these laws have produced wearing rates of more than 50 percent. Although such rates are lower than those achieved in other world jurisdictions, they are considerably higher than rates that prevail in states without such laws. Since drunk drivers are especially likely to go unbelted, increments in belt wearing are disproportionately beneficial in reducing alcohol-related deaths.

A related recommendation is to enact and enforce mandatory helmet laws for motorcyclists. Violations of helmet use laws are especially easy to observe and prosecute, a fact that has helped such laws achieve among the highest compliance rates known. The relationship between compliance with these laws and reduced cyclist death rates is well demonstrated. The laws can be considered especially relevant to drunk driving inasmuch as FARS data show a high proportion of alcohol-related fatalities among motorcyclists.

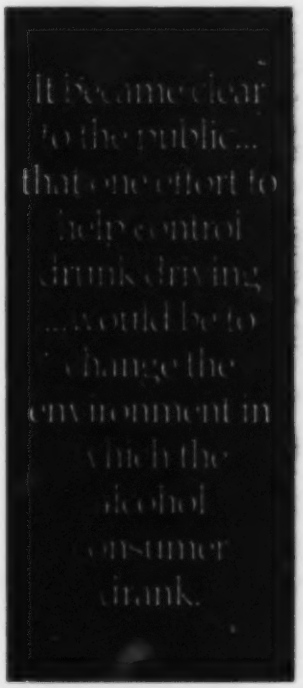
The prompt availability of emergency medical services addresses the final link between impaired driving and the loss of life on the highways. Measures such as the provision of roadside telephones and the funding of helicopter services should be considered relevant to the drunk driving problem and supported by those who would work to reduce the number of lives lost in alcohol-related crashes.

Front Line Intervention: A Server Training Program

By Marc E. Chafetz, J.D.

H. Laurence Ross, Ph.D., is Professor of Sociology at the University of New Mexico. He is the author of 3 books, "Settled out of Court" (1970), "Deterring the Drinking Driver" (1982), and "Confronting Drunk Driving" (1992). Dr. Ross received the Widmark Award for lifetime achievement from the International Council on Alcohol, Drugs and Safety. He was also a Fulbright Scholar to Belgium and Finland and taught at the University of Oxford.

More than fifteen years ago, some people concerned with the prevention of alcohol abuse and drunk driving realized that their prevention efforts were incomplete. They had overlooked something obvious: once a person has had too much to drink, he or she loses recently learned information, forgets previously formed good intentions and becomes oblivious, for example, to messages not to drive drunk. The concept that once drunk, people are incapable of rational decision making, led to the development of training procedures by servers of alcohol. There are now several programs available nationwide that provide intervention strategies for the alcohol serving community.


It became clear to the public... that one effort to help control drunk driving ...would be to change the environment in which the alcohol consumer drank.

It soon became clear to the public concerned with drunk driving that one effort to help control drunk driving—though not a panacea—would be to change the environment in which the alcohol consumer drank. By training alcohol servers how to recognize when someone was drinking in an unhealthy way and how to intervene in a non-threatening manner to slow down or halt the irresponsible alcohol consumption, such people could often prevent drunkenness. Since even the best efforts are not flawless (indeed, some people arrive at an establishment already intoxicated), training was needed to educate servers in how to deal with intoxicated people as well.

One server education model that has been available for many years is the TIPS program. Due to my role in developing this program, I am not an unbiased reporter. This program has trained about a half-million people in all fifty states and more than twenty foreign countries. It is just one example; there are, in fact, many other public and private programs with similar goals. Although the exact numbers are unknown, it's reasonable to assume that well over a million people have been trained in responsible alcohol service by a broad spectrum of server education programs.

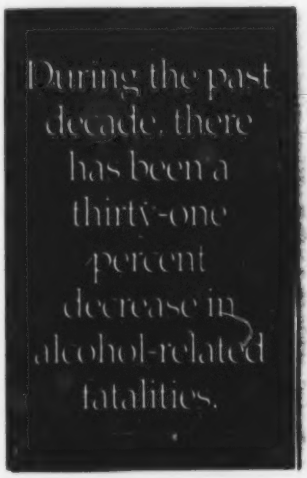
This article will describe the various elements of the TIPS program, some of which may be found in other programs implemented nationwide. These elements and ideas are derived from hands-on experience in promoting and providing training to the alcohol service industry. As an attorney, I will also review the legal environment in which server education has developed.

During the past decade, there has been a thirty-one percent decrease in alcohol-related fatalities, according to the Centers for Disease Control. Although many claim credit for this heartening trend, no one can prove

with scientific certainty why this decrease occurred. Server training may, in fact, be one contributing factor to the decline in alcohol-related driving fatalities.

History

In the early 1980s, an angry public was becoming increasingly aware and intolerant of drunk driving and its consequences. Groups such as MADD sprang up and proliferated. In 1982, President Reagan established the Presidential Commission on Drunk Driving which recommended server training as one of several prevention efforts. As Dr. Ross stated in his 1992 book, *Confronting Drunk Driving*, "The most important source of drunk drivers, according to numerous surveys, is bars and taverns." This suggests involving commercial establishments in the solution.

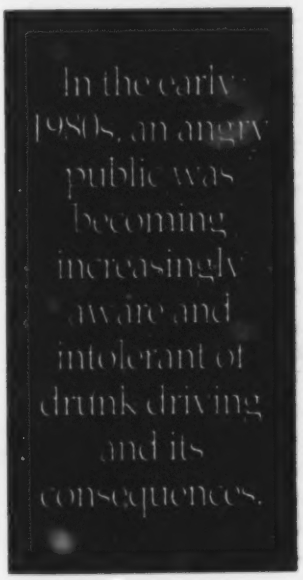


Concomitant with public outcry about the devastation wrought from drunk driving, many sought relief in the courts. Injured people began suing the commercial establishments where the individual became drunk alleging that the resultant damages were foreseeable by the establishment. What was originally a novel legal approach became commonplace.

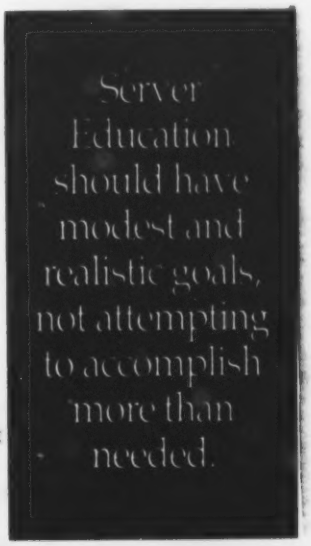
As a result of ever-increasing judgments (or settlements) funded by the property and casualty insurance companies, the insurance industry took note. Not only were such lawsuits expensive, but also the public looked kindly upon those industries that were promoting social responsibility. As a result, many major insurance companies decided to provide prevention discounts to establishments where server education was implemented. The Insurance Information Institute, a property and casualty insurance educational organization, promoted server education in a national advertising campaign in late 1988. By the mid-1980s, a variety of sources—political, public, legal, insurance—had coalesced to promote the idea of server training.

The Elements of Server Training

As with any educational approach, there exist more or less thorough programs, of varying emphases and methods of presentation. Given that some individuals viewed the increasing acceptance of server training as an opportunity to make money, some people quickly developed programs of dubious effectiveness. Most of the nationally known programs, however, are effective to varying degrees.


In the early 1980s, an angry public was becoming increasingly aware and intolerant of drunk driving and its consequences.

The more effective programs do the following: (a) provide basic information about alcohol and how it can affect individuals in different ways; (b) educate about the different levels of intoxication; (c) instruct about how to intervene effectively to prevent unhealthy drinking; and (d) engage participants in role-plays of an intervention to increase behavioral skills and confidence in subsequent real-life situations.



I believe it is important that training not be pedantic, but be designed to provoke a friendly dialogue among the participants. Trainers should not "talk down" to participants and should explain that there are no absolute answers for all situations; rather, guidelines and recommended approaches should be suggested. The trainers can be anyone, with no special degree required. Many programs have created a cadre of trainers within the hospitality field which provide the servers "one of their own"—whose ideas are perceived as relevant and practical—leading their trainings. This approach makes the material more accessible to service staff.

Server education should have modest and realistic goals, not attempting to accomplish more than needed. In recent years, many states and cities have begun to pass laws requiring server training. Often these regulators use this opportunity to "throw in the kitchen sink," wanting to make servers mini-lawyers, mini-therapists and so forth. Although well intentioned, these laws may have the effect of diluting the amount of relevant training that gets absorbed. Laws have been passed that insist the server be knowledgeable in the minutia of criminal, civil and administrative law. The server is to be educated about fetal alcohol syndrome as well as signs of alcoholism. There is evidence that such a trend distracts from the important knowledge necessary to understand and recognize unhealthy drinking behavior and to stop it.

The Required Knowledge

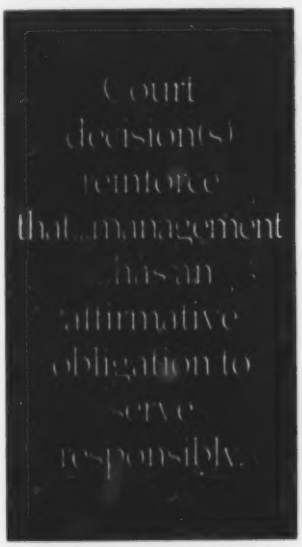
Server education programs may differ in their required knowledge and training methods. I will outline TIPS

as one example of a server education program.

First is the "Information Section," which communicates basic facts about alcohol. The concept of blood alcohol content (BAC) is explained. Participants learn that people are likely to become intoxicated faster, for example, on an empty stomach. They also learn that females—as a result of relatively higher body fat—are more likely to become drunk faster than males.

The next section involves "Skills Training," beginning with videotaped scenes portraying people in various stages of intoxication. At the end of each scene, trainees are asked to evaluate whether a person is intoxicated. These scenes are designed to provoke animated discussion among participants led by the trainer. The second half of Skills Training uses vignettes depicting intervention. Once again, these depictions are designed to stimulate discussion and interaction. Through discussion, participants learn differing types of effective and ineffective intervention.

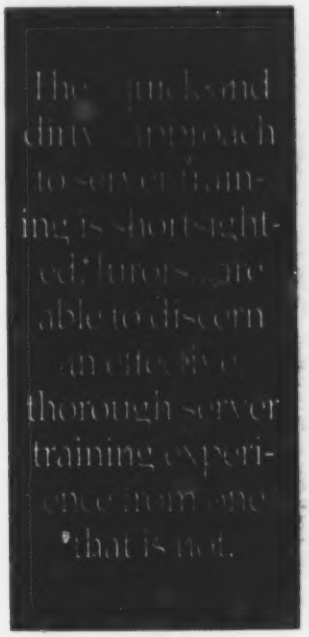
All vignettes are short. The commercial alcohol serving environment necessarily requires quick judgments. Therefore, the scenes are designed to simulate a real-life situation that would allow only brief observation and require quick analysis. After Skills Training, participants engage in a role-play exercise, acting out some problem situation involving alcohol consumption. Other participants must use their newly acquired skills to try to prevent consumption. Role-playing not only solidifies the servers' newly acquired information but provides experience in directly applying the techniques, and when so doing later in their own establishments, it will not be the first time.



Finally, all participants are tested. Passing the test leads to certification and entrance into a database. This entry into an accessible database is important for legal reasons where servers and their establishments are required to demonstrate that they have been trained, and documented training may also provide future defense against civil liability.

Management Involvement

No one solution exists for any complex social problem. Drunk driving is no different. Nonetheless, there is increasing evidence that effective server training works. Even minimal server courses have some residual impact on servers.



Although some have argued that server training without management involvement is ineffective, I feel that this is an incorrect notion. It is management's decision, after all, to train its servers in the vast majority of cases because it is financing the process. Management has made a policy decision to support server training, probably to obtain liability insurance and to have a "responsible server" defense in the event of a dram shop suit. Today's litigious world requires effective server training. Court decision after court decision reinforces that requirement. Accordingly, management knows it has an affirmative obligation to serve—or be able to prove that they attempted to serve—responsibly. Increasingly, such training is becoming an integral element of all alcohol serving establishments.

This trend, moreover, is why the "quick and dirty" approach to server training is shortsighted. Jurors are not naive. After a terrible accident involving alcohol has occurred, they are able to discern an effective, thorough server training experience from one that is not.

Expanded applications

Server training has now expanded well beyond only the commercial servers of alcohol. In increasing numbers, others are becoming trained from concessionaires to college students, from parents to company employees who function as social hosts. These are healthy trends, part of a developing social norm which discourages intoxication in any setting. Not only will such a norm make our highways safer, but will reduce other public health, safety, and law enforcement problems associated with alcohol intoxication. Such a future is not as distant as some may think.

Marc E. Chafetz, a lawyer and former prosecutor, was the President and a founder of Health Communications, Inc. in Washington, D.C. Mr. Chafetz is nationally known as an authority on server training and liquor liability. Mr. Chafetz has lectured as well as appeared in the media both nationally and internationally and is the author of many articles.

DUI Countermeasures Overviewed

By Jack Dresser, Ph.D.

Disease or injury countermeasures in public health are classified as agent, host, or environment directed. In attempting to reduce driving under the influence (DUI), restricting the agent (alcohol) failed in its most radical application—outright prohibition—but has shown some effectiveness in more limited applications. Most effort has been aimed at the host—the drinking driver—in the form of offender sanctions and rehabilitation programs, which presumably provide a deterrent effect as well. The drinking environments which contribute to DUI have received the least attention, but these may offer our most powerful prevention strategies.

The drinking environments which contribute to DUI have received the least attention, but these may offer our most powerful prevention strategies.

Restricting the agent

Over 100 post-Prohibition legal provisions have been documented among the various states to control access to alcohol. These primarily involve licensing and regulation (32 states) or state control (18 states) of alcohol sales, liquor taxation and price controls, and establishing a legal drinking age. A study in Iowa following increased alcohol availability showed some changes in drinking patterns but no overall increases in consumption or alcohol-related problems. However, Australian studies in Perth and Brisbane showed increased frequency and severity of vehicle crashes with the introduction of Sunday alcohol sales. Also, National Highway Traffic Safety Administration (NHTSA) analyses following changes in Minimum Drinking Age laws in 13 states indicate a 12% effect in decreasing traffic fatalities among the age groups affected. Despite the fact that some 90% of high school seniors report drinking, and our study of an Eastern university found that 20% of lower division students had driven under the influence during the preceding year, risk is nevertheless reduced by these laws however imperfectly they are observed. Thus, it can be argued that "partial prohibition" still has a place in reducing alcohol-related problems.

Sanctioning the host

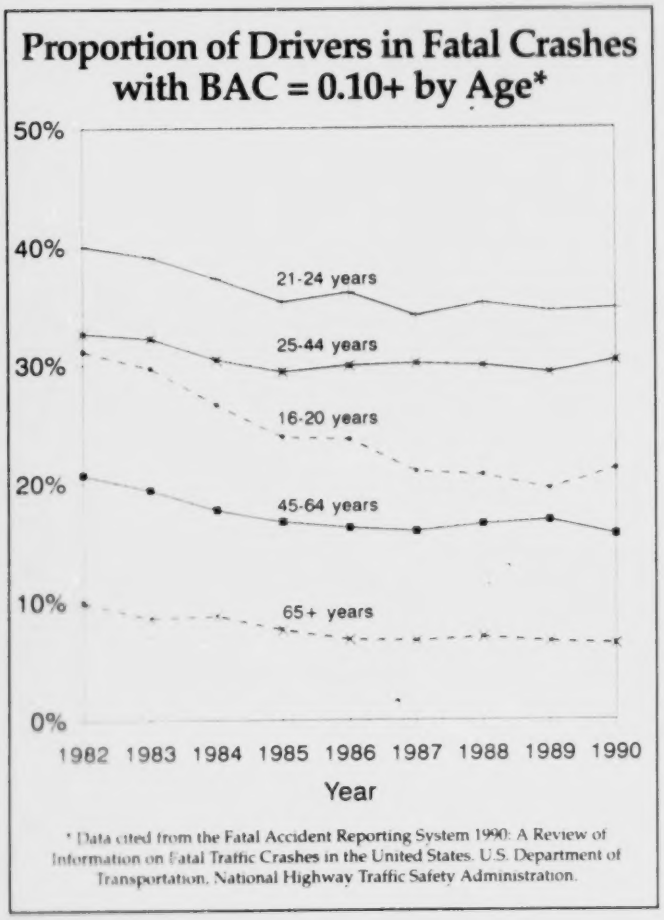
Although occasional driving after drinking is commonplace according to surveys, its habitual repetition is more likely to eventuate in a DUI arrest which brings the "host" to our attention. What to do with these individuals once identified is the question.

License suspension has not been shown to have a lasting impact on DUI offenders.

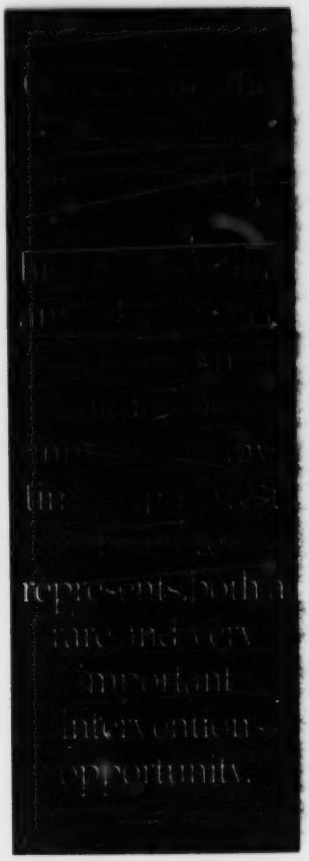
Punishment, as Dr. Joseph Gusfield has commented, appeals to the American bias toward individualism, which attributes social problems to individual moral failures amenable to disciplinary correction. Our bias notwithstanding, court-imposed punishment is largely ineffective as Dr. Ross has documented, associated with neither a "specific" (to the offender) nor "general" (to other drivers) deterrent effect. This is likely due to the extremely low probability of a negative consequence for any individual act of DUI, combined with the uncertainty and long delay of punishment after arrest. Swiftness and relative certainty have been shown by decades of research on learning to be the key factors in "reinforcement" - the power of a consequence to influence recurrence of a preceding behavior. In addition, of course, the consequence must be experienced as negative by the offender, a criterion not always met by criminal justice sanctions to which many chronic offenders become desensitized. Offenders have told me, for example, that an occasional DUI fine was a small price to pay for their highly valued drinking habits over the years.

Administrative license suspension and its promise has been described by Dr. Ross. This sanction satisfies the reinforcement criteria of negative *impact*, consequence *certainty* and

consequence *immediacy*. Any loss of a privilege will predictably feel punishing, and greater severity (e.g., loss of freedom through jailing) is unlikely to produce better results based on both learning theory and the research evidence. Thus, this provides an inexpensive approach of demonstrated effectiveness, probably the best and most easily implemented among available legal sanctions. However, license suspension has not been shown to have a lasting impact on DUI offenders.

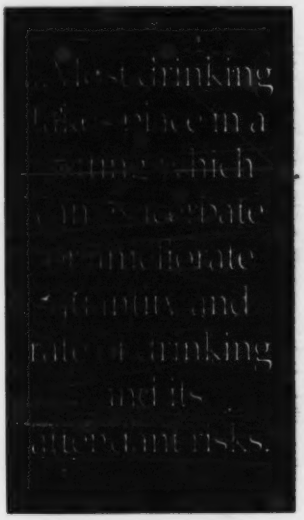

Proportion of Drivers in Fatal Crashes with BAC = 0.10+ by Age*
50%
40%
30%
20%
10%
0%
21-24 years
25-44 years
16-20 years
45-64 years
65+ years
1982 1983 1984 1985 1986 1987 1988 1989 1990
Year
* Data cited from the Fatal Accident Reporting System 1990: A Review of Information on Fatal Traffic Crashes in the United States. U.S. Department of Transportation, National Highway Traffic Safety Administration.

Educational and therapeutic intervention is an approach favored by the author, which has been evaluated in over 300 studies over some two decades with mixed findings. I believe these inconsistent findings are due to the varying quality of such programs, many of which are too superficial to change chronic, habitual drinking behaviors. This is unfortunate, since a DUI arrest usually signals a need and provides an opportunity for intervention. A 12-state NHTSA study found a third of DUI arrestees were repeat offenders. A California study found that 44% of DUI offenders convicted in 1980 were re-convicted of DUI within 10 years. Another study found that 12% of intoxicated drivers involved in fatal crashes had a prior DUI conviction, compared with 3% among all licensed drivers. Considering the low ratio of arrests to DUI events, it is highly likely that any DUI arrestee has driven under the influence many times, and arrest therefore represents both a rare and very important intervention opportunity. Unless their alcohol problems are effectively addressed, these offenders are at very high risk to do it again, and repeatedly, with or without documented recidivism in the form of re-arrest. Considering the risk of arrest reported by Dr. Ross, two arrests would extrapolate, on average, to some 2,000 drinking driving occasions and 10,000 impaired miles driven. While the general public may overestimate the risk of DUI arrest, the habitual drinking driver has a personal, more realistic probability estimate from an experiential database.



To be consistently effective, the evidence suggests that an intervention must be intensive and attentive to offenders' drinking problems in a broad context. In my own 4-year experience directing DUI programs with some 8,000 offenders, about half of first offenders had been arrested with BAC levels of .15 or more. This reflects a significant degree of alcohol tolerance and probable dependency as well as a 600-fold increase in fatal crash risk. Our programs therefore provided intensive confrontation with alcohol abuse and dependency, its effects on one's relationships and responsibilities, the need to develop tolerance and expression of feelings as an alternative to drinking, and often the need to grieve for the relinquished addiction. This was done through 15 educational hours and group discussions conducted by well-trained therapists focusing on self-awareness and changes in thinking, personal integrity, self-image, emotional awareness and expression, social roles and self-chosen responsibilities. Clients' alcohol use was explored and modified in these larger contexts. In our multi-ethnic population, cultural norms and alcohol expectancies also emerged as a prominent factor. An interesting and unexpected finding was the almost uniform enthusiasm of these court-mandated, supposedly "unmotivated" clients. Given useful information and perceptive attention, most became engaged, active participants and made important changes in their use of alcohol during the program.

Other promising intervention programs have been developed and studied, which share in common an intensive, court-coerced evaluation and treatment process resulting in identification of alcohol problems and involvement of alcoholic and high-risk drinkers in treatment. For example, a model developed in Massachusetts imposes intensive supervision to enforce treatment compliance. This program (1) mandates an intensive, closely monitored treatment program of 30 weeks to which all repeat offenders and some 80% of first offenders are assigned, (2) requires attendance at three or four AA meetings weekly throughout this period, and (3) provides incentives for involvement of "significant others" to address enabling and dysfunctional support systems. In comparison with a traditional punitive sanction, this model program reported a 47% vs. 17% abstinence rate, a 59% vs. zero reduction in alcohol consumption among those who continue to drink, and 95% vs. 15% AA attendance, with a dropout rate of less than 10%.



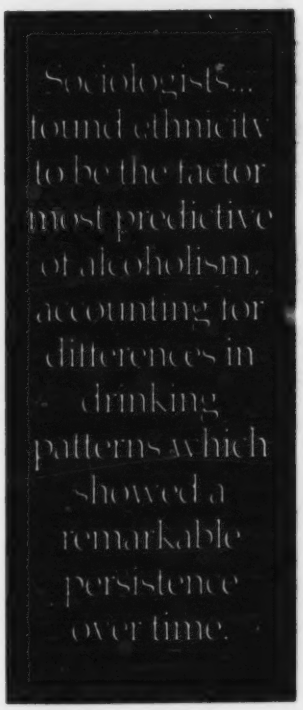
Another model, a "weekend intervention program" developed by an Ohio medical school, emphasizes thorough assessment, breakdown of denial, and preparation for the acceptance of treatment during a single, intensive residential weekend. It is patterned after the Johnson Institute intervention model, emphasizing high-impact confrontation of the alcohol abuser with realistic feedback from others. Another promising approach which can be added to such programs is a "victim impact panel" where offenders are confronted with victims of other impaired drivers. This strategy is designed to increase empathy with potential victims, a sobering and socializing experience which I believe can be important with many types of offenders who fail to consider victims and potential victims. Since most DUI injuries and fatalities inflict the offenders themselves, their families also become victims—a consideration I found motivating to many offenders who tend to deny personal fear.

Although the better educational and treatment approaches have demonstrated success, the questions of what types of treatment work best for what types of offenders and why have remained less clearly answered. However, an extensive meta-analysis of such remedial interventions is currently underway to explore these issues.

Modifying the environment

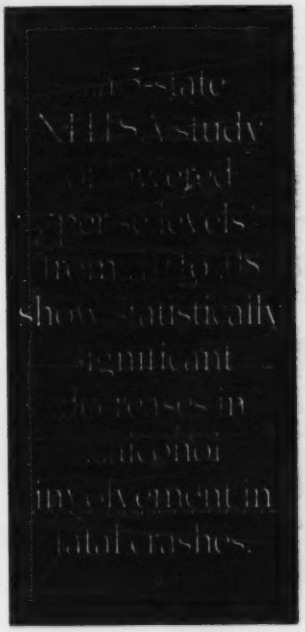
These approaches recognize that most drinking takes place in a setting which can exacerbate or ameliorate rate and quantity of drinking and its attendant risks. Drinking behavior is governed largely by social norms, and behavior under the influence of alcohol is shaped by "alcohol expectancies" which vary widely among cultures and social groups. As Dr. Ross indicates, other environmental factors can increase or decrease risk of injury among intoxicated individuals, but I will limit my discussion to the social environment.

Server education as described by Marc Chafetz is viewed as an environmental strategy, but overlaps with agent control since it attempts to restrict access to the agent for two targeted groups—minors and the already intoxicated. Since about half of DUI arrests originate in licensed establishments subject to public regulation, it is a strategy which makes sense and which some jurisdictions have formalized. Several studies have been done on this strategy. Saltz found that a very thorough program, including changes both in management policy and server practices in a Naval enlisted club, reduced by over 30% the number of patrons who became legally intoxicated. Several other studies using a "pseudopatron" method where a researcher simulates intoxication, have demonstrated the potential effectiveness of server education. McKnight's 8-state study involving 100 licensed establishments showed significant overall improvement after training; however, only 20% of the pseudopatron scenarios evoked an intervention. Also, there were large differences among sites; in one Louisiana "Cajun" and two northeast communities there was no post-training improvement, with significant improvement in only four sites which accounted for the overall results.



Site-specific factors do appear important. During a study in Los Angeles we found widespread disinterest among bar owners in server training even when offered at no cost. We have also recently completed a study in Oregon, the first state to mandate this training for all alcohol servers. This study was completed 8 years after the legislation took effect. Despite general acceptance by servers and management, and widespread compliance with training requirements, we failed to

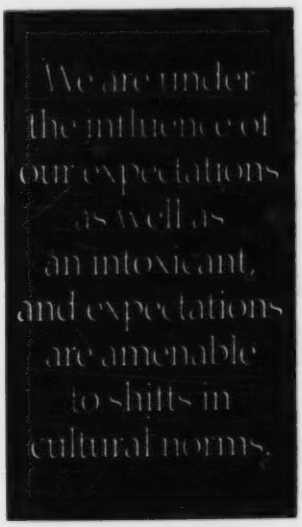
find an association between statewide server education and reduced DUI crashes. Further, observations in drinking establishments revealed many violations in practice (service to visibly intoxicated patrons and failures to check ID of the possibly underaged) and substantial differences between establishments. Our experimental study of server education in Los Angeles showed improvements in server knowledge and intentions, but minimal changes in patron drinking rates. McKnight found similar low correlations between knowledge and practice. From these studies, we feel that training should concentrate on behavioral skills, and ongoing management support is undoubtedly important in maintaining responsible practices among servers.



Ride service programs (RSPs), which provide transportation home for impaired persons, represent another environmental strategy we have studied. These, along with designated driver programs, focus not on preventing intoxication but on subsequent driving. These have been criticized as potentially "enabling" alcohol abuse by removing a motive to moderate alcohol consumption, but preventing DUI, not overconsumption, is their primary objective. Under NHTSA contract, we selected and studied two model RSPs, one operating year-round and one during the Christmas-New Year holidays only. We found high levels of public recognition and acceptance for these programs among the general public and bar drinkers whom the programs target, but very low levels of utilization as a fraction of DUI-risky occasions. Most drinkers report using alternative transportation sometimes but also driving after drinking sometimes, and primarily choose socially familiar alternatives such as friends to drive them home. RSPs were seldom considered despite drinkers' awareness of them as an option.

We also found that the decision not to drive increased with increasing intoxication, as it realistically should, but only up to a point; at the higher intoxication levels, this trend to sound judgment reversed. Although our sample of those in the highest intoxication range was small, this certainly supports the goal of server education to prevent intoxication. More information is needed on drinking driving decisions. What variables determine the decision to drive or not to drive after drinking? Our study suggests that level of intoxication is one such variable. Other studies suggest that personality variables such as depression and the impulsive "problem behavior" profile, and demographic variables such as youth, male gender (although young women are closing the gap), and social economic status are determinants. Prevention efforts might be targeted to such identified social groups.

The cultural environment is undoubtedly pivotal as well. Social norms and culturally conditioned alcohol expectancies certainly play a role. One group of sociologists using social survey data in four large American cities found ethnicity to be the factor most predictive of alcoholism, accounting for differences in drinking patterns which showed "a remarkable persistence over time." Another study, of self-perceived cultural drinking norms in British Columbia, found that daily drinking was twice as frequent among Chinese men as Latin American men; however, nearly 80% of Chinese limited themselves to 1-3 drinks while less than 20% of Latin Americans did so, and no Chinese men reported drinking six or more consecutive drinks while nearly three in five Latin American men reportedly did so. Clearly, one cultural drinking pattern produces much more DUI risk than another. In two of our studies using identical patron interview methodology, we found significant differences in estimated mean BAC levels between customers exiting three types of Los Angeles bars (Hispanic .07, Gay/Lesbian .04, and African-American .02, consistent across three time samples) and rural (.08) and urban (.04) Anglo establishments in Oregon. Countermeasure implementation and effectiveness may also be influenced by cultural variables. For example, McKnight found significant differences between establishment clientele types, with less server intervention in "yuppie" and upscale establishments.


We are under the influence of our expectations as well as an intoxicant, and expectations are amenable to shifts in cultural norms.

So-called "alcohol expectancies"—our expectations regarding the *effects* of alcohol—are also culture-specific as reflected in wide cross-cultural variability in intoxicated behavior. Alcohol expectancies have been shown to primarily affect social behaviors and operate independently of alcohol's pharmacological effects. Thus, we are under the influence of our expectations as well as an intoxicant, and expectations are amenable to shifts in cultural norms—as our experience with both smoking and gross intoxication has demonstrated. The cigarette-smoking Bogarts and drunken Dean Martins have disappeared from our media, which should

encourage systematic attention to influencing norms.

One widespread expectancy in American culture holds that only "drunks" are dangerous behind the wheel. The danger in emphasizing only "drunk" driving is that *any* amount of blood alcohol increases risk, with many crashes occurring at BAC levels well below the "per se" level legally defining intoxication. Further, heavy drinkers with high alcohol tolerance often do not appear intoxicated despite high BAC levels.

Changes in the legal environment can also be effective, as seen in raising the minimum drinking age. Similarly, preliminary findings from a 5-state NHTSA study of lowered per se levels from .10 to .08 show statistically significant decreases in several measures of alcohol involvement in fatal crashes. In general, I think we can assume that such legislation reflects and consensually validates changing cultural norms and increases the sense of legal risk among the risk conscious—a substantial fraction of the population albeit perhaps not the highest-risk fraction.

There are many fronts in a comprehensive DUI countermeasure campaign and many questions yet to be answered. Measurable blood alcohol is present in nearly half of all traffic fatalities, which kill more Americans than intentional violence.

Jack Dresser, Ph.D. is a senior research psychologist at Integrated Research Services, where he served as principal investigator on a NHTSA-funded study of ride service programs, participated in two studies of server education, and evaluated several DUI countermeasure programs throughout Oregon with Dr. Martin Molof. Previous to these research activities, he developed and administered five DUI offender programs for multi-ethnic California populations over a four year period and has consulted with the United Nations on drug demand reduction.

Publishers' Corner

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The Prevention Researcher

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Internet Resources for the Prevention Professional

By Charles Woodson, Ph.D.

The world-wide Internet is a constantly expanding treasure trove of information and contacts for every conceivable topic, including many about prevention. Use of the Internet can be divided into three broad categories: first, e-mail, where messages are exchanged between individuals and groups; second, the exchange of files by copying and transmitting them between computers; and third, the World Wide Web of documents, where users view and access text, graphics, video and sound files using convenient "point-and-click" interfaces.

E-mail, Mailing Lists, and Newsgroups

Using e-mail you can send a message to a particular person's computer account by using an address such as: president@whitehouse.gov which is an actual address of a relatively well known person. Mailing lists of people with common interests are also widely used, and there are newsgroups where people post messages and read other posted messages. Newsgroups are being formed or modified every day. You can find out about newsgroups by searching the list of newsgroups for a key term or hearing about one from a colleague. These are described in more detail by Glenn Meyer and Stefan Kramer.

File Exchange

The second category of use is the exchange of files. Examples of this include FTP (file transfer protocol) for sending or receiving a copy of a file, Gopher (a document search-and-retrieve system) which facilitates finding a file based upon its name, and WAIS (Wide-Area Information Server) which allows one to look up information by a search for particular content. Once you find where the information is, you can copy it by FTP. There are millions of such documents available, including thousands of full-length books.

The World Wide Web

The third way of using the Internet is to access the World Wide Web (WWW) of information available in hypertext (for a glossary of internet-related terms, see page 6). These hypertext materials are distributed throughout the world. Hypertext documents are linked to other hypertext documents on the WWW, so entering the domain at one point serves as a connection to many other points. The great convenience and power of the WWW is related to its use of hypertext. The notion of hypertext predates the WWW. It is found in the Macintosh multimedia program Hypercard and in "help files" in many programs such as Microsoft Windows. Hypertext pages typically contain dozens of links to other pages. On the WWW, material to be linked can be on any machine on the WWW. These information pathways encompass the world.

FROM THE EDITOR'S P.C.

Dear Colleagues:

I want to welcome all of you to our fall issue of the Prevention Researcher. This is our fourth issue and as promised, we will be releasing three newsletters a year.

This Prevention Researcher issue focuses on "The Internet and Prevention." With nearly 30 million subscribers on the internet and many of those folks connecting daily to the World Wide Web, we felt the relevance of focusing this issue on cyberspace.

Professor Charles Woodson of the University of California, Berkeley, Stefan Kramer of the University of Washington, and Professor Glenn Meyer, Chair of the psychology department at Trinity University, have all contributed pieces to this issue. Each author has taken a look at how the Internet and specifically, various data bases and access links, may assist those in the health and human services professions in collecting new information about our respective fields. We think all three authors have broken down the "mystique" of cyberspace and communicated in a language all of us will be comfortable with.

I hope you enjoy this fourth issue. We think it is a good resource guide for the future. As always, we welcome your feedback and comments.

Have a great Autumn!!!

Steven Ungerleider, Ph.D.
Psychologist/Editor

This built-in linkage to other documents distinguishes the WWW from other information sources on the Internet where there are no links used within the documents. For example, with hypertext, you can select a linked word or subject and documents linked to that word, including pictures, are accessed and displayed for you.

The World Wide Web is the easiest way to get on the Internet and access the volumes of information available. The powerful tools for accessing information graphically encourages you to explore beyond your limits. Few people who use the WWW just ask questions. They explore.

The WWW is accessed with a program called a browser that provides access to information with a simple point-and-click interface. This easy access to various media makes the Web the fastest growing and most popular aspect of the Internet. Because of the large amount of information that needs to be transferred, this access is practical only through a higher speed modem (greater than 2400 baud) or a network connection to the Internet through a local network. The most popular browers are Netscape or Mosaic. These programs are available free to individual users. Many other browser programs are expected to be available soon. Other preexisting methods of information access and retrieval are also available through Netscape and Mosaic. You can copy a file, search directories with Gopher, and read the messages in a newsgroup.

Each document on the Web is identified by a Uniform Resource Locator (URL) or address. The documents themselves are formulated in hypertext markup language (HTML). HTML adds instructions to documents about how they should be displayed. For example, it indicates what words should be clicked on for a link and which terms should be listed as a numbered list of items. You only need a few URL's to get started, as most documents are linked to others and ultimately, to the entire network of information.

The browser program running on your computer interprets the HTML and displays it on the screen. HTML documents are texts with simple formatting instructions imbedded in them. The browser interprets these codes and makes an appropriate display on your screen.

Applications for Prevention

One way to access a resource is to use the Universal Resource Locator (URL), which is the address of the file. Regarding prevention, one of the best resources to begin with is the information service (http://www.health.org/) of the Center for Substance Abuse Prevention of the U.S. Department of Health & Human Services known as the National Clearinghouse for Alcohol and Drug Information (NCADI). NCADI is the world's largest resource for current information and materials about alcohol and other drugs. NCADI services include: an information services staff equipped to respond to the public's inquiries about alcohol, tobacco, and other drugs (ATOD); the distribution of free ATOD materials, including fact sheets, brochures, pamphlets, posters, and video tapes from an inventory of over 1,000 items; a repertoire of culturally-diverse prevention materials, tailored for use by parents, teachers, youth, communities and prevention professionals; and the development and distribution of the Prevention Materials Database (PMD) that includes over 8,000 prevention-related documents available to the public in electronic form.

The index of the Prevention Primer (http://www.health.org/primer/toc.htm) is a useful way for prevention practitioners to access this reference tool. It incorporates the principles of a public health approach to the prevention of ATOD problems in its summaries of issues and strategies found in dozens of articles. For example, the Prevention Primer has a section on violence (http://www.health.org/primer/violence.htm) which focuses on the association of alcohol and other drug use with spousal and child abuse cases, homicides, and rapes.

Another useful resource is the Center for Substance Abuse Research (CESAR) (http://www.inform.umd.edu/EdRes/Colleges/BSOS/Depts/Cesar), a research center within the College of Behavioral and Social Sciences, University of Maryland at College Park, that aims to collect, analyze, and disseminate information on the nature and extent of substance abuse problems in Maryland and the nation. CESAR also conducts research on specific initiatives to prevent, treat, and control substance abuse, and

provides technical assistance and training to state and local government agencies.

CESAR provides four primary information services. The weekly CESAR FAX provides a one-page overview of a timely substance abuse topic. The CESAR Reports Newsletter keeps readers informed on substance abuse issues. The Maryland Compendium of Drug Abuse Indicators provides a single source of current information about Maryland and national substance abuse trends. CESAR BOARD, an electronic bulletin board, includes a list of prevention programs, evaluations and relevant statistics, and a bibliography on prevention.

Table 1 lists a number of WWW sites and their corresponding URLs which might be helpful to the prevention professional.

Table 1 - World Wide Web Sites

Compiled by Charles Woodson, Stefan Kramer, and Glenn Meyer.

American Psychological Association
http://www.apa.org

American Psychological Society
http://www.hanover.edu/psych/APS/aps.html

Association for Medical Education and Research in Substance Abuse (AMERSA)
http://center.butler.brown.edu/AMERSA/amersa-profile.html#sabuse
AMERSA is an association of multidisciplinary health care professionals in the field of substance abuse dedicated to improving education about alcohol, tobacco, and other drugs.

Arizona Health Sciences Center Public Health Information Guide
http://128.196.106.42/ph-hp.html
Intended to help locate resources from the Internet that are related to public health.

Canadian Centre on Substance Abuse
http://www.ccsa.ca/
Drug problems in Canada and corresponding programs of prevention.

Census Data (Reference and Interdisciplinary Information)
http://www.einet.net/galaxy/Reference-and-Interdisciplinary-Information/Census-Data.html
A subject collection of Internet resources related to census data.

Centers for Disease Control
http://www.cdc.gov/cdc.htm
Mission: To promote health and quality of life by preventing and controlling disease, injury, and disability and includes considerable information on prevention.

Center for Substance Abuse Prevention (CSAP)
http://www.covesoft.com/csap.html
Information about the CSAP Training System and Technical Assistance to Communities Project.

Clearinghouse for Subject-Oriented Internet Resource Guides
http://www.lib.umich.edu/chhome.html
An ongoing joint effort of the University of Michigan's University Library and the School of Information and Library Studies, listing Internet resources in a wide variety of subject areas.

Domestic Violence Handbook
http://www.interport.net/~asherman/toc.html
Useful ideas and references on the prevention of domestic violence.

Join Together
http://www.jointogether.org/jointogether.html
Join Together Online is a project of Join Together, a national resource center for communities fighting substance abuse. Join Together Online provides news on funding, substance abuse, and public policy, as well as technical assistance and a forum for exchanging ideas.

NCADI - National Clearinghouse for Alcohol and Drug Information
http://www.health.org/
National Clearinghouse for Alcohol and Drug Information (NCADI) is the information service of the Center for Substance Abuse Prevention of the U.S. Department of Health & Human Services.

Partnerships Against Violence Network (PAVNET)
gopher://pavnet.esusda.gov:70/11/violence
Provides users with suggestions and information about techniques for combating violence, how-to manuals, resource guides and information about funding for prevention programs.

THOMAS: Legislative Information on the Internet
http://thomas.loc.gov/
A service of the Library of Congress, THOMAS provides keyword searching capabilities of the full text of legislation, proceedings, and Congressional Record for the 103rd and 104th Congress.

This is an abbreviated list compiled by the authors, for the full list, please e-mail CKINTEG@CERF.NET.

Getting Started

On WWW pages, the terms that are linked to other information sources are underlined (or highlighted). When you click on one of these terms, your computer sends a message to the computer where the information is stored requesting that a copy of the information be sent. The details of these links and requests are transparent to the user, but you can view the URL by putting your cursor over the term and observing the display of the URL.

Since most HTML documents on the WWW have links to other documents, once you find a few relevant sources you can use these as a base to continue your exploration of the WWW. Most browsers have the capability of storing a list of favorite URL's you have found to facilitate going back to the selected spots on the WWW and continuing your exploration of the leads you previously found.

In addition to seeking a particular URL, we could also start our use of the WWW by a search on a specific term, such as drugs, addiction, or prevention. This technique is described in detail by Dr. Meyer. Browser programs facilitate such searches by giving you a number of leads to follow.

Before long you will be preparing documents about your own work and organization and adding them to those available on the WWW. ❖

Charles Woodson, Ph.D. (cwoodson@soe.berkeley.edu) is a professor at the University of California, Berkeley. He teaches courses about the academic use of the Internet, human learning, and the interface between humans and computers.

Getting Started on the Internet in Prevention Research

By Stefan Kramer, M.L.S.

The Internet: tomorrow's TV set?

Over the course of the past year and a half, the Internet has made its way from relative obscurity into the mass media, where it came to be touted as the present-day manifestation of the "Information Superhighway." After record numbers of new users joined "The Net," something of a backlash against the Internet has begun in recent months, with many writers deriding a lack of truly useful information to be found there. In Clifford Stoll's most recent book, *Silicon Snake Oil: Second Thoughts on the Information Highway* (Doubleday, 1995), he derides the Internet as not only largely void of substance, but even as distracting from genuine human experience.

The Internet is, unfortunately, in the process of becoming a victim of vague, but rapidly rising, expectations: it is supposed to satisfy a mass market that is presumably hungry for "content," and wants it "interactive" and in "multimedia" format - all that for minimal cost to the end user, and without advertising. As it now becomes evident that the Internet cannot be all things to all people, cannot fill personal or cultural voids at the click of a mouse-button any more than other mass media, it is time to reassert its immense useful-

Table 2 - Listservers & Mailing Lists

Compiled by Glenn Meyer and Stefan Kramer

Four Good Places to Find Lists

(some of the Web sites we reference also have lists of lists):

Tile.Net / Listserver - Reached Through the World Wide Web
http://www.tile.net/tile/listserv/tilebyd.html

American Psychological Society - Reached Through the World Wide Web or Gopher
gopher://gopher.hanover.edu/00/Hanover_College_Information/Psychology/APS/listserv.txt

Lists of Lists - available through Ordinary E-mail
send: SEND INTEREST-GROUPS
to: mail-server@sri.com

Publicly Accessible Mailing Lists- reached through the Web or FTP
http://www.NeoSoft.com:80/internet/paml/
or
ftp://rtfm.mit.edu/pub/usenet/news.answers/mail/mailing-lists

Prevention, Psychology & Support Lists

ADDICT-L
Discussion of research and information pertaining to addictions.
send: SUBSCRIBE ADDICT-L <YOUR NAME>
to: LISTSERV@KENTVM (bitnet)
LISTSERV@KENTVM.KENT.EDU (internet)

AERA-E
Counseling and Human Development division of the American Educational Research Association.
send: SUBSCRIBE AERA-E <YOUR NAME>
to: LISTSERV@ASUACAD.BITNET

ALCOHOL
Alcohol and drug studies.
send: SUBSCRIBE ALCOHOL <YOUR NAME>
to: LISTSERV@LMUACAD.BITNET

BEHAVIOR
Behavioral disorders in children and youth.
send: SUBSCRIBE BEHAVIOR <YOUR NAME>
to: LISTSERV@ASUVM.INRE.ASU.EDU

DEPRESSION
Mood disorders in clinical and research settings.
send: JOIN DEPRESSION <YOUR NAME>
to: MAILBASE@MAILBASE.AC.UK

FAMCOMM
Marital/family and relational communication.
send: SUBSCRIBE FAMCOMM <YOUR NAME>
to: COMSERV@RPIECS.BITNET
List address: famcomm@vm.its.rpi.edu

GERINET
Focused on care and behavioral treatment of the elderly.
send: JOIN GERINET <YOUR NAME>
to: LISTSERV@UBVM.CC.BUFFALO.EDU

INTVIO-L
Child, spousal, dating, sexual & physical abuse.
send: SUBSCRIBE INTVIO-L <YOUR NAME>
to: LISTSERV@URIACC.URI.EDU

IOOB
Industrial psychology.
send: SUBSCRIBE IOOB <YOUR NAME>
to: LISTSERV@UGA.BITNET

PARKINSN
Parkinson's Disease-Information Exchange Network.
send: SUBSCRIBE PARKINSN <YOUR NAME>
to: LISTSERV@VM.UTCC.UTORONTO.CA

PSYCHINS
Psychology instructors.
send: JOIN PSYCHINS <YOUR NAME>
to: LISTSERV@INDYCMS.BITNET

PSYMEA-L
Developmental psychology.
send: JOIN PSYMEA-L <YOUR NAME>
to: LISTSERV@UBVM.BITNET

SCHIZ-L
Schizophrenia research.
send: SUBSCRIBE SCHIZ-L <YOUR NAME>
to: LISTSERV@UMAB.UMD.EDU

SPORTPSY
Exercise and sports psycholgy.
send: SUBSCRIBE SPORTPSY <YOUR NAME>
to: LISTSERV@TEMPLEVM.BITNET

TRAUMATIC-STRESS
Consequences of highly stressful (traumatic) events. Of special interest are efforts to identify a cure of PTSD.
send: JOIN TRAUMATIC-STRESS <YOUR NAME>
to: MAILBASE@MAILBASE.AC.UK

Due to space limitations, this is an abbreviated list of that compiled by Dr. Meyer and Mr. Kramer. For the complete list please e-mail CKINTEG@CERF.NET.

ness for what is was created for. It is a tool of communication and of information delivery in the research and education communities. Prevention researchers are among the groups of practitioners who have a lot to gain from passive (as information consumers) or active (as information providers) engagement on the Internet.

Getting connected

If you work for a medium to large research institution, government agency, college, or university, your organization probably already has a direct connection to the Internet. Contact your computer systems support department and ask how you can get the Internet to your desktop.

If you don't have a direct Internet connection, or if you also want to access the Internet with your home computer, you will probably start out with a modem dial-up account. Here, your options are essentially to: (1) sign up with one of the large commercial online account providers, such as America Online, Compuserve, or Prodigy, which increasingly offer Internet access as part of their services; or (2) find a local, regional, or national dial-up provider specializing in Internet access.

Option (1) has the advantage that you will likely be dealing with a large, professionally run organization with a 1-800 phone number, a well established billing and technical infrastructure, and enough resources to make continuous improvements. On the down side, after a few hours a month of access at a flat rate, they tend to charge you by the hour—and that can run up quite a bill once you become a serious 'Net user. These organizations are also very marketing savvy, and you may soon feel like you are in a virtual shopping mall where your every menu choice is registered as a taste preference that will get you on some mailing list.

Option (2) has the advantage that "pure Internet" providers are only in the "Internet dial-tone" business, and they won't try to sell you, or charge you for, any content they have already acquired. They also typically charge a flat rate per month, so your online costs are more predictable. On the other hand, they usually do not provide you with customized connection software, and customer service may be spotty, so more of the burden of getting (and keeping) up and running is on you. How do you find such a provider? Through one of the many Internet guide books now available, such as *The Internet Unleashed* (Sams Publishing, 1994), through your local computer newspaper, or a computer trade magazine. Also ask around; a few minutes of conversation with a colleague who has already tried some dial-up providers may save you many hours of experimentation.

Mailing Lists

Today, with everyone focusing on the "World Wide Web," the most overlooked aspect of the Internet is its power as an interpersonal communications medium. Electronic mail (e-mail) allows for communication with friends and colleagues across continents within seconds, and at the same cost as sending a message to someone in the next building. Unlike fax or telephone, e-mail carries no long-distance charges; and unlike a telephone call, an e-mail message can be responded to at the recipient's leisure, stored for future reference, included in a reply for reference, and (hopefully with the sender's consent) forwarded to others. However, e-mail is also used for one-to-many communication in the form of mailing lists.

Mailing list e-mail addresses are in the form of <LIST-NAME>@<HOST>. To subscribe to any of these lists via

TABLE 3 - NEWSGROUPS

Compiled by Glenn Meyer

Places to find Newsgroups and Info

(some of the Web sites we reference also have lists of Newsgroups)

World Wide Web Site For Psychology Resources:
http://chat.carleton.ca/~tscholbe/psych.html

General Usenet Resources for Finding new groups and Periodic posting Posts of list of Groups
news.groups or News.Announce Newgroups

FAQ Sites:
news.answers or alt.answers

Some Relevant Newsgroups (m = moderated)

Adults from dysfunctional families	alt.recovery.adult-children
Alternate models of dealing with abuse	alt.abuse.transcendence
Anxiety and panic disorders	alt.support.anxiety-panic
Causes & treatment of allergies	alt.med.allergy
Children's health issues	misc.kids.health
Chronic Fatigue Syndrome (CFS)	alt.med.cfs (m)
Digest of general issues in psychology	sci.psychology.digest (m)
Disorders of migraine and headache ailments	alt.support.headaches.migraine
Eating disorders (anorexia, bulimia, etc.)	alt.support.eating-disord
Epilepsy	alt.support.epilepsy
For people with personality disorders	alt.support.personality
Foster parents	alt.support.foster-parents
Gay youths helping each other (m)	soc.support.youth.gay-lesbian-bi
General psychology	sci.psychology
Issues of grief and loss	alt.support.grief
Learning disabilities (eg.-dyslexia, etc.)	alt.support.learning-disab
Manic depression & bipolar disorders	alt.support.depression.manic
Medical discussion of AIDS & HIV	sci.med.aids (m)
Multiple sclerosis	alt.support.mult-sclerosis
Obesity	alt.support.obesity (m)
Recovering from sexual abuse	alt.sexual.abuse.recovery
Recovering from sexual addictions	alt.recovery.addiction.sexual
Recovery and Alcoholics Anonymous	alt.recovery.aa
Recovery and Narcotics Anonymous	alt.recovery.na
Research issues in psychology	sci.psychology.research (m)
Schizophrenia	alt.support.schizophrenia
Single parenting solutions and support	alt.support.single-parents
Spina-bifida	alt.support.spina-bifida

Due to space limitations, this is an abbreviated list supplied by Dr. Meyer, for the full list please e-mail CKINTEG@CERF.NET.

Internet e-mail, the most typical procedure is to send a message to the address LISTSERV@<HOST>, substituting the host from Table 2 for <HOST>. In the message body, write SUBSCRIBE <LISTNAME> <YOUR-FIRST-NAME> <YOUR-LAST-NAME>, substituting the name of the list, and your first and last names. So, assuming your name was Jane Johnson, and you wanted to subscribe to AERA-E, the mailing list of the Counseling and Human Development division of the American Educational Research Association: You would address your message to LISTSERV@ASUACAD. BITNET; in the body of the message you would write (exactly, nothing more or less, because this message is handled as a command by software): SUBSCRIBE AERA-E Jane Johnson. (See Table 2 for a list of mailing lists and specific instructions for joining each).

After a while (seconds to hours), you will receive a message confirming your subscription (unless the list is not open to the "public" - some are restricted, for example, to a specific university campus). It will also include instructions on, among other things, how to have your entry removed from the list.

The quantity, quality, and nature of discourse on mailing lists can vary considerably. The best way to find out which mailing lists will match your needs and interests is to ask colleagues who are already subscribed, or to simply subscribe and "lurk" for a while.

Newsgroups

Mailing lists, however, are not the only method of online discussion on the Internet. Usenet provides for message exchange in a bulletin board-like format. You access the messages, which are organized in subject-specific, hierarchically organized "newsgroups," using newsreader software. The advantage of Usenet over mailing lists: no need to contend with lots of messages in your electronic "in-box"; the disadvantage: postings to newsgroups expire after a certain time period (typically, a month), so you have to check in frequently to not miss any message exchanges. Moreover, you have to actively check in to Usenet, while mailing lists prod you to keep up. A list of newsgroups is included in Table 3.

Don't be distracted by the hype about the Internet, nor the backlashes against it, in the mass media. As a practitioner or researcher in the prevention field, the Internet can be invaluable to you, both as a means of communication and a source of information. It could even reduce your dependence on printed publications, telephone and fax, and save funds. ❖

Stefan Kramer, M.L.S. (skramer@cac.washington.edu) received his Master's Degree in Library and Information Science from the University of Washington, Seattle. After working as an Information Services Specialist for NorthWestNet, a regional Internet service provider for the Northwestern U.S., he is now a Senior Computer Specialist at the University of Washington's Network Information Center.

Glossary of Terms Used in These Articles:

bandwidth - information transmission capacity of a network.

baud - a measure of transmission speed, typically for modems; today the more accurate measure, bits-per-second (bps), is preferred.

cyberspace - the publicly accessible realm of networked, digital, interactive resources.

electronic bulletin board - dial-up or network-accessible host allowing for message transmission, file sharing, and interactive, real-time communication or games.

graphic interface - intuitive front-end to software, typically requiring a mouse as input device.

hierarchically based menus - an interface structure of nested lists of choices; for example, "Gopher" on the internet.

home page - World Wide Web pages that serve as a point of entry for a server, or subsection of it.

host - a computer providing a service, or a multitude of services, to a group of users.

hypertext - text containing embedded links to graphics, video, audio, other documents, or other types of files.

hypertext markup language (HTML) - the document structure underlying hypertext files on the World Wide Web, a part of the internet.

interfaces - types of methods allowing users to interact with computers, both on the software and hardware level, with the goal of maximizing both intuitiveness and choice range.

listservers - hosts managing the distribution of mailing lists and the addition and deletion of subscribers from these lists.

usenet - a network, accessible in (but not limited to) the internet, that distributes messages, organized hierarchically by subject, which the reader then accesses selectively. Today, there are several thousand usenet "newsgroups" (discussion forums).

World Wide Web page - A screenful of information on the Web, typically with hyperlinks to other pages.

by Stefan Kramer

Cyberspace and the Prevention Professional: Multitude of Resources & A Community of Experts and Friends

By Glenn E. Meyer, Ph.D.

Personal computers have changed the way we do business. It is rare to see a professional who does not use some sort of word processor. When was the last time someone did a statistical analysis by hand? Gone are the days of India ink pens. My charts are all done on my computer and with my new color printer.

The next victims of the computer age will be surface mail (or snail-mail), that monthly copy of your favorite professional journal (that sits unread in your attache case), and the trip to the library to look something up. Except for getting L.L. Bean to send you new hiking shorts, all of these paper based functions will be given over to the Internet. It's a frightening prospect for the computer-phobic who don't find computers to be as friendly as claimed. In this piece, I want to give you a brief overview of the Internet and the environment that will aid the prevention professional in gathering information and communicating.

What is the Internet?

The Internet is a vast array of interconnected computers. It started in the late 1960's as a network developed by the Department of Defense for military researchers to share computer resources. This net (ARPANET) developed a protocol for transmitting electronic packets of information. It's a long story, but series of networks and computers were linked continually so that today there are least 5,000 networks connecting 2,000,000 machines and 20,000,000 users. The growth is not just in Academia or Government. Commercial use is expanding. I have found Pizza Parlors on the Net and have just seen my local TV news show announce their e-mail address and World Wide Web page.

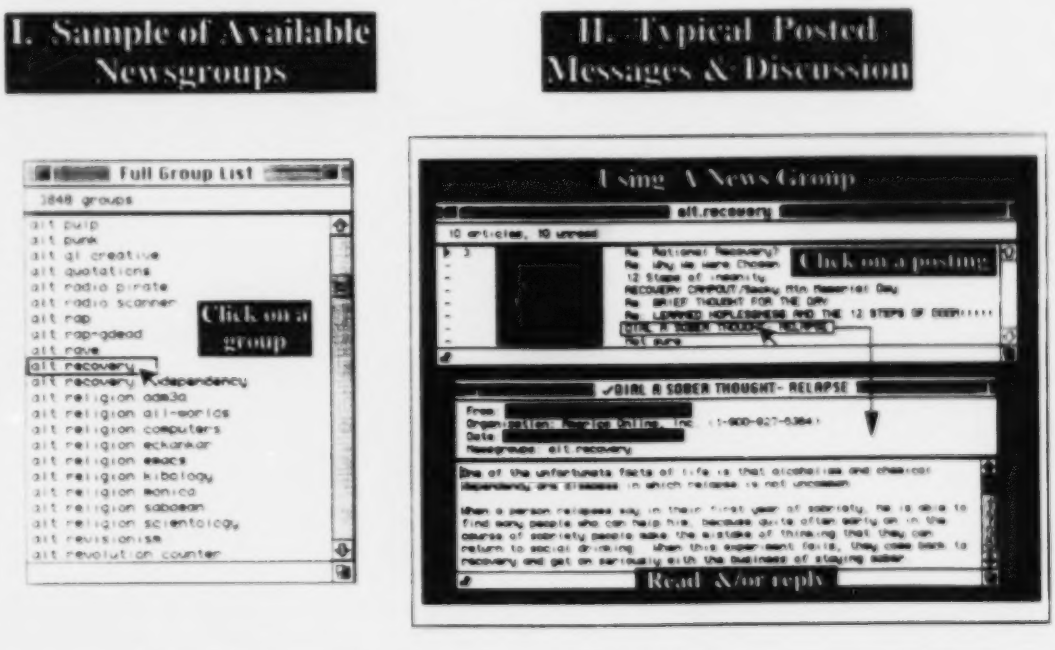
Basic Resources For the Prevention Professional

E-Mail and Listservers

The resource most people first use is Electronic Mail (e-mail). With an Internet connection your computer becomes a quicker, faster and usually more accurate mailbox. Text messages are easy to do and, with more sophistication, files from various program formats can be sent. One can even request information from granting agencies. I find that most people respond to e-mail more quickly than they do regular mail.

However, there is more to e-mail then just sending messages back and forth. You can join a mailing list of addresses of people interested in a common topic. The list is sometimes supervised and run by a moderator. It works as follows: after you join or subscribe to a list, you can send a message to the e-mail address for that list. Your message will be forwarded to all who subscribe. They will see the message in their e-mail and can respond. Thus you can

FIGURE 1



BEST COPY AVAILABLE

Table 4 - Electronic Journals and Newsletters

Compiled by Glenn Meyer

World Wide Web Sites to Find Electronic Journals & Newsletters

MedWeb: Electronic Newsletters and Journals
http://www.cc.emory.edu/WHSCL/medweb.ejs.html

Electronic Journal of Sociology
http://gpu.srv.ualberta.ca:8010/homel.htm

Guide to Electronic Journals, Conference Proceedings, and Other Periodicals Related to Psychology
http://psych.hanover.edu/Krantz/journal.html

Some Relevant Electronic Journals & Newsletters
(some are only tables of Contents or Abstracts).

AIDS Information Newsletter
American Psychological Association Observer
American Physiological Society Abstracts
Behavioral and Brain Sciences
Computer-Mediated Communcation Magazine
Drugs (tables of contents)
Drugs and aging (tables of contents)
Drugs in the workplace
Educational Policy Analysis Archives
Electronic Journal on Virtual Culture
International Journal of Human Computer Studies
Journal of Artificial Intelligence Research (refereed)
Journal of Behavior Analysis and Therapy
Journal of Cognitive Neuroscience
Journal of Computer Mediated Communication (refereed)
Journal of NIH Research
Journal of the Experimental Analysis of Behavior
Learning and Memory
Psyche (a refereed E-journal on consciousness)
Psychology Software News. Some articles and reviews
Psycoloquy, an APA sponsored E-journal
Substance Abuse Report

Due to space limitations, this is an abbreviated list supplied by Dr. Meyer, for the full list please e-mail CKINTEG@CERF.NET

ask a question and many times get a quick answer. Many lists have archives of back exchanges, useful files of information, and other resources. Specific procedures for joining lists or retrieving information are described in Stefan Kramer's article. There are also several good books on these procedures available in bookstores and libraries.

How do you find lists relevant to your work or interests? In Table 2 is a series of lists that may be useful to the prevention professional. Note, however, that lists come and go and anything you see printed may be gone by the time you try it.

There are down sides of mailing lists. Some lists generate too much traffic. You have no choice about what you receive. Thus, your system can get swamped. Even if you like the materials, you can run into technical problems of having too many messages sent to you. Another problem is useless, repetitive or self-indulgent chatter. I have dropped several such lists. To avoid this, sign up only to moderated lists where postings are scanned by someone first. You can sign up for a week and very quickly decide if you want to stay on.

Newsgroups

In my opinion a more useful option exists in the form of Usenet Newsgroups. These are like bulletin boards. You post a message with a topic and people who open that Newsgroup can see your posting with its subject header. They can read the message and can either post a reply that will appear in the posting list or e-mail you a personal reply. Basically you have an army of consultants and experts that are easily accessible. Figure 1 shows a selection from a menu and a typical posting. This one is from a group entitled Alt.Recovery.

Some news groups maintain what is known as a FAQ (Frequently Asked Questions). Thus one can find very comprehensive summaries of reasonable questions of interest to the group.

Newsgroups, listservers and e-mail also have cathartic and network building value. You can express your opinion and establish contact with players in your field. I have communicated with folk and then met them at conventions and started new friendships and professional relationships.

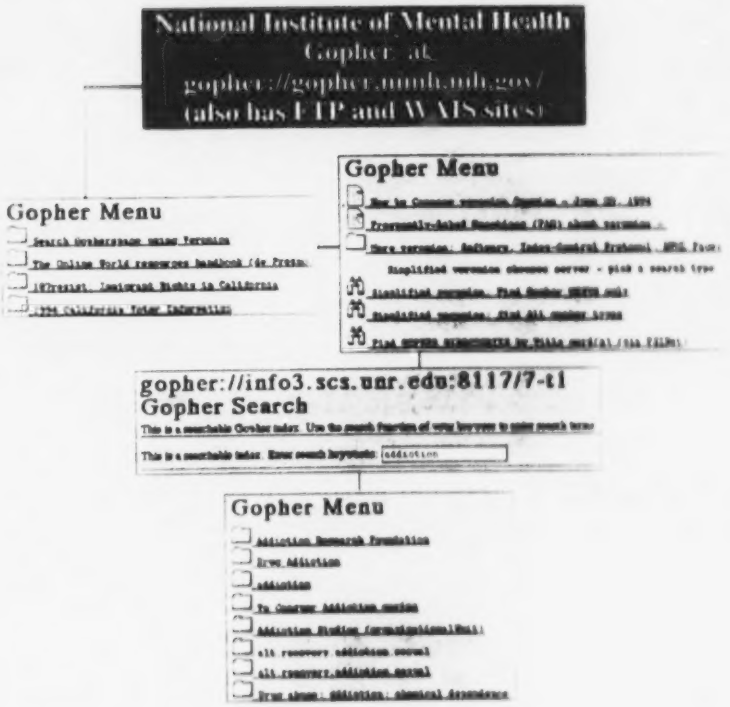
Since there are 9,000 or so Newsgroups, you might wonder which are relevant to you. Table 3 presents the titles of some relevant Newsgroups. There may be many more that are useful. It is also the case that not all providers carry all groups. There are also downside characteristics of Newsgroups. If someone posts an answer to you and you don't check the group for a while you may miss the answer. You should request that people directly e-mail you a response to avoid this. A big risk is that you don't have a sure way of evaluating the credentials of those who post or respond. That might be okay in a Star Trek discussion but for a prevention or technical issue, you should be careful about the source.

E-Journals and Newsletters

We are also starting to see the establishment of electronic newsletters and journals (e-journals) on the Internet. One can subscribe to them and they are sent to you through your regular e-mail processes. There are various levels of "intensity." Some are merely fact sheets or newsletters (e.g., AIDS Information Newsletter). Some are the table of contents and/or abstracts of useful journals (e.g., Drug Safety). Some are actually refereed journals of notable quality such as Psycoloquy from the American Psychological Association. One interesting facet of e-journals is that communication isn't one way. Several invite commentaries so there is a chance to see expert opinion of some scholarly claim very quickly. In Table 4, you will find a list of relevant titles that we have found. As always, their current existence should be checked and the existence of many more are soon guaranteed.

E-journals and newsletters are also starting to appear on the World Wide Web. I would predict that we are beginning to see the end of the paper journal that you receive monthly, carry around for a while and then put on the shelf. They will be replaced by Web pages that will offer quick access to all back issues and almost instantaneous posting of

FIGURE 2



your article after it has been accepted. One down side is that one might have to learn HTML (Hypertext Markup Language) as well as specific formatting styles.

One might also see the demise of the strength of the classic Scholarly Society. If your article is rejected you might be able to post it yourself to a Newsgroup or announce its existence, e-mail to a listserver, or put it on a Web page. If you worry about reviewing—don't worry—there will be plenty of comments. We might see the evolution of reviewing by the market forces of involved parties on the Internet. In some fields, this is already happening as important information does not wait for the lag time of a year that a paper journal requires.

Information on the Internet (FTP, Gopher & the World Wide Web)

An exciting use of the Internet is to get information and avoid going to the library (sometimes). Text, images, programs and animations are available to you through the Internet. The ability to present stunning color or moving images will start to make conventional resources obsolete. A book of color photographs of the brain would be prohibitively expensive but you can access such resources for free—right now.

There are three major types of information retrieval on the Internet. They are FTP, Gophers and the World Wide Web (WWW). As you will see, the WWW is swallowing up the others, so sometimes I will mention it in the context of describing the first two.

FTP

FTP stands for File Transfer Protocol. At various sites, computers called servers contain archives of files. By using appropriate FTP commands, you can download these files to your machine. FTP usage is the clumsiest of the three ways to get information as you have to issue exact commands to get the specific files. One typo and you've blown it. People experienced with line-based interfaces like DOS or Unix know this frustration. Also, you have to know the information exists on the Net before you can go get it. There are no search capacities. However, Gopher and the WWW can aid you in finding files.

Gopher

Gophers are a little easier to use as they are hierarchically based menus of files and folders. Thus, one can select the material wanted rather than having to type the command line. Most machines have graphic interfaces for Gopher software or you can use a Gopher server from the World Wide Web - this enables you to simply click on a file and it will be sent to you.

Another advantage of Gopher is that software exists to search for Gopher sites that have materials of interest. One common search program is called "Veronica." While there are separate Gopher programs you can use, it is becoming more common to find Gopher sites through the World Wide Web. I have identified several sites useful for the prevention researcher or professional. First, I would recommend the Gopher at the National Institute of Mental Health. This is found on the World Wide Web at: gopher://gopher.nimh.nih.gov.

It is particularly useful as it claims to maintain connections to all the Gopher sites in the World and has a wide selection of search options and servers for these searches. It also has sets of FTP and WAIS sites available to aid using these protocols. An example of a Gopher/Veronica session searching for "Addiction" is presented in Figure 2.

Another useful site is found on the WWW at: http://www.lib.uwaterloo.ca/society/overview.html. This site links over two hundred scholarly societies, many of which have useful gophers. The societies also have links to many other places, so they are a good starting point.

Thus Gopher usage is easier than FTP usage and graphic interface software using the point and click icon method is available. Its main strength is its search capacities. But in the next section, it gets even better.

The World Wide Web

The WWW refers to servers that use a graphic hypertext

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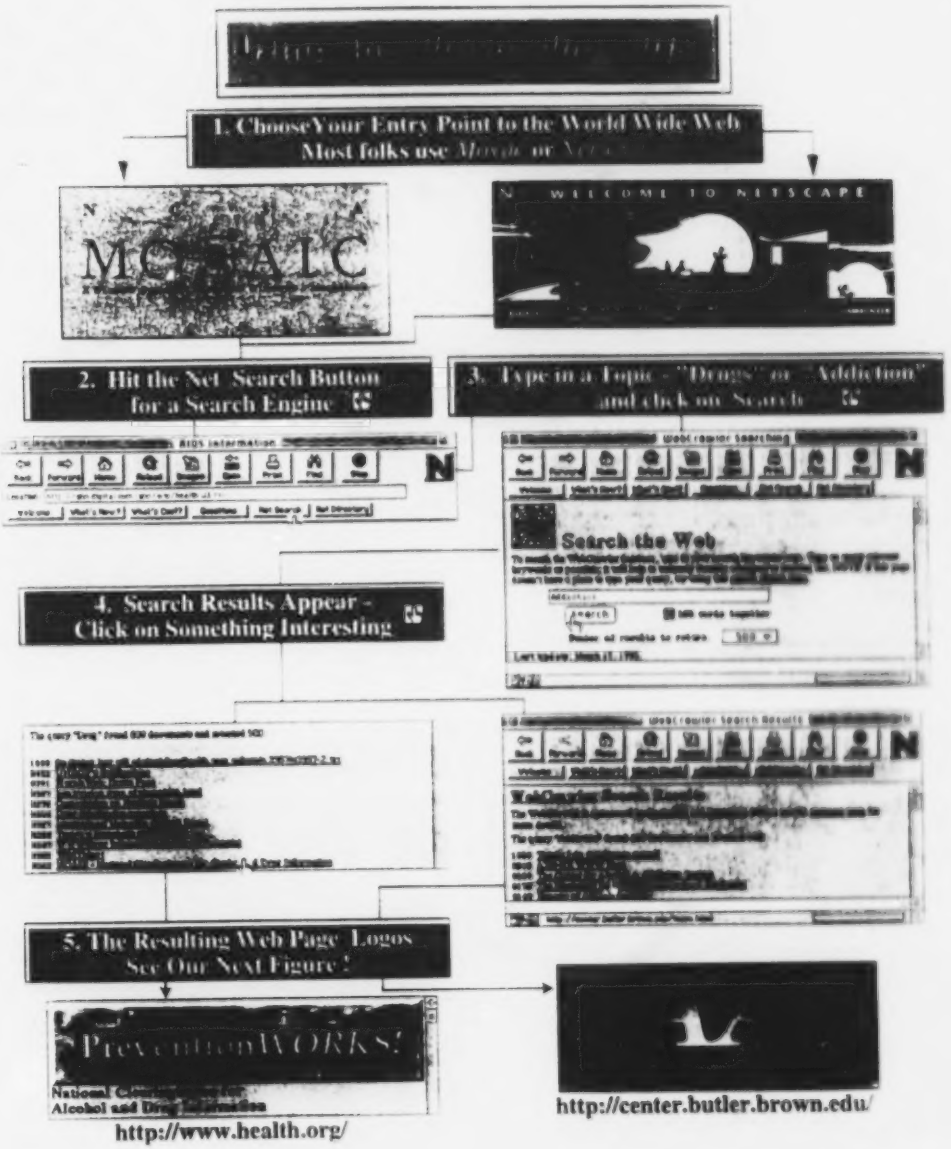
FIGURE 3


1. Choose Your Entry Point to the World Wide Web
Most folks use Mosaic or Netscape
MOSAIC
WELCOME TO NETSCAPE
2. Hit the Net Search Button for a Search Engine
3. Type in a Topic - "Drugs" or "Addiction" and click on Search
Search the Web
4. Search Results Appear - Click on Something Interesting
5. The Resulting Web Page Logos See Our Next Figure!
PreventionWORKS!
http://www.health.org/
http://center.butler.brown.edu/

interface (called a Web Page) that enables presentation of full color graphics, sound and animations. You see much more than boring text. Full color icons that can be symbolic or photographic in quality lead you to the information you want. The information can be graphics, sounds, text, etc. Common formats now exist. Many, many sites maintain Web pages for graphic information retrieval.

To use the Web, you will need specific software and the most common choices are Netscape or Mosaic.

When opening up a web page, you usually see a jazzy logo of the organization and sets of clickable options. These can be pictures or highlighted text. Select them and more information appears or you can go to another set of choices or even another site. The ability to click and not use line based commands makes the tool easily usable by beginners. Powerful online encyclopedic resources are available to the user. Even more important, the entry pages from Netscape or Mosaic have powerful search capacities that exceed that of Gopher searches. In fact, a Web search can come up with FTP sites and Gopher sites. You can then click on these resources and avoid many of the complications of these lower level systems. Web software can also access the Newsgroups discussed earlier and can manage e-mail. I would predict the end of separate programs for the FTP, e-mail and Newsgroups in the near future.

Web pages and other sites are identified by rather nasty addresses that make e-mail addresses look simple. You've seen some of them in previous sections. Luckily, the search capacities and linking abilities usually let you avoid them. They are useful when someone mentions a web in text or you buy a directory in a book store. In that case you need to type the address in the program. But you need do this only once since the link can be saved.

Web usage and searching

Figure 3 presents an example using Netscape or Mosaic to find resources about "addiction" or "drugs"—my keywords for this search. The particular example was done on a Macintosh computer but the two programs look the same on a Windows/Intel PC. In the example, I opened the Netscape program (Step 1). In Step 2, I clicked on [Net Search] and a 'search engine' appeared. This page accesses a program enabling me to search for Internet sites (Pages, Gophers, FTP sites) that relate to my key words. There are nuances to searching which I am glossing over but the pages themselves explain these. For Step 3, I entered the keywords "addiction" or

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"drug." Note in Step 4, the query for "drug" brought up 500 documents. "Addiction" yielded 108. Importantly, the sources are now available to be clicked upon and accessed. Under the [WebCrawler Search Results] I see titles of interest. Note the "drug" search brought up an FTP site. I clicked on the hypertext in "Addiction" list for [The Center for Alcohol and Addiction Studies] and was taken to the page for this organization at Brown University. Similarly, I was taken to the National Clearinghouse for Alcohol and Drug Information (NCADI) page.

Two things to note. You can go back from the page to your search results (see the [Back] button in Step 2). You can also save the address or link to a site so you can return to it without re-searching. Also, you don't have to type the nasty address - if you want, a list is saved for you using any name you give it. In Figure 4, we go to NCADI and show how to use it to find information on African-American youth.

Depending on the search engine, the user can search for interrelated topics such as addiction and family violence, or drugs and gender. The search engines usually have help or descriptive options that tell you how to conduct these type of searches.

There are many useful resources for the prevention professional. As mentioned before, you can find them through using search routines or by using a specific URL address as described by Dr. Woodson. Table 1 lists several sources with much information and links to other sites. They also may have information to Gopher/FTP sites, Newsgroups and e-journals we didn't list. Using these sites can get you started and lead to many more sites that space limitations prevent me from listing.

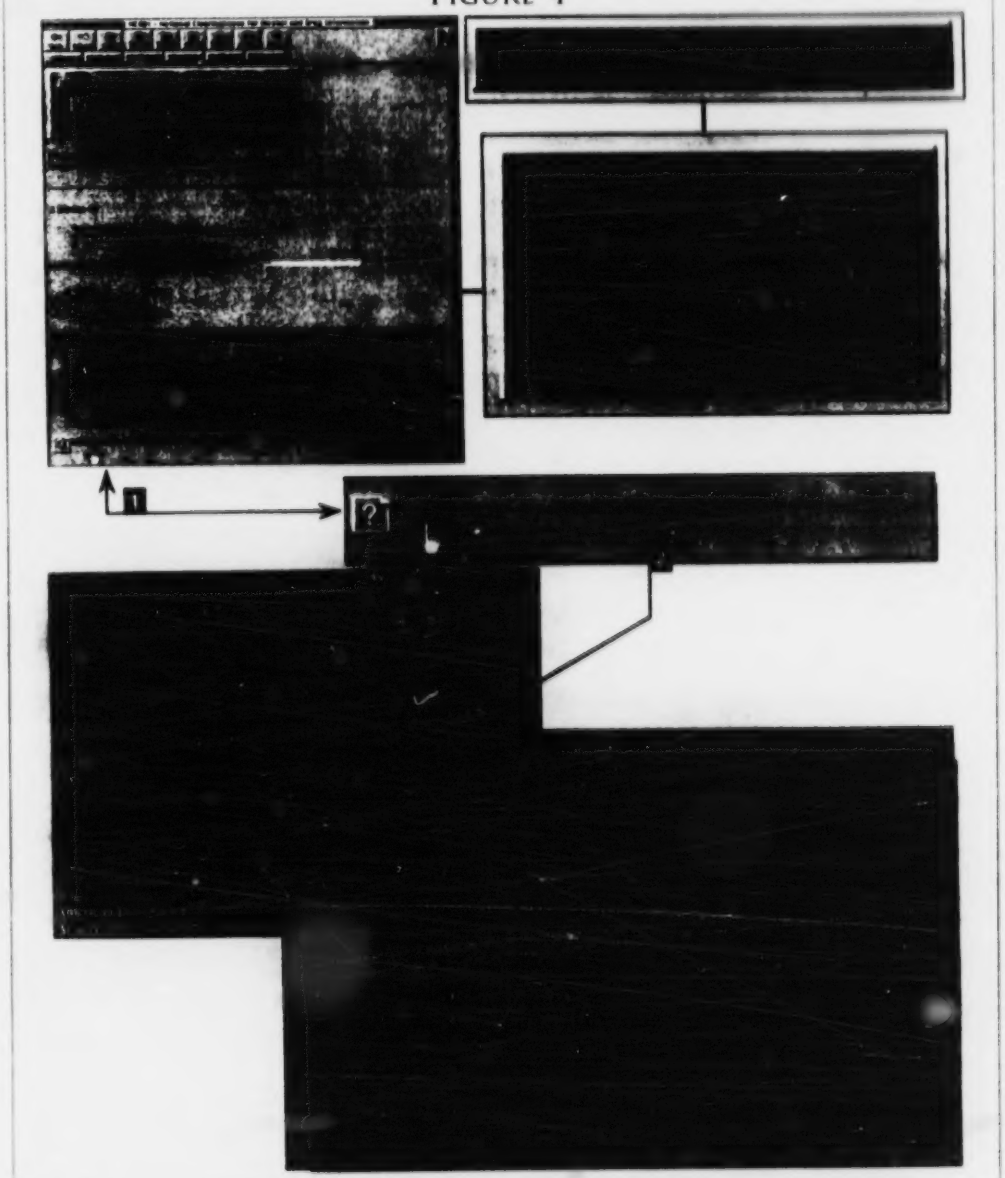
Thus, the World Wide Web is most likely the wave of the future for Internet communications. There are some cautions, however. Currently, web sites are not refereed and differ in quality.

Conclusions & Speculations

Cyberspace is tremendously exciting. It can also be addicting. Already there are projects that are looking at Internet addicts. People can't get off their systems. They have to read that last message or access the latest Web pages. Pretty soon we may have 12-step programs for these folks. Much literature exists about computer phobias, but now a literature may develop about computer addiction.

Growth of the Internet means that we can gain access to information almost instantaneously (or in a few minutes—depending on bandwidth). Expert consultations will be easy to obtain if the camaraderie of the Internet is maintained. As the title of

FIGURE 4



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the article indicates, we can build networks of support faster and across wider areas than ever before.

While I am very enthusiastic, a potentially serious problem does exist for society. Some people will be disadvantaged in the information based society of the future. Will there be funds to assure that these skills and resources are available to all schools? Some social theorists argue that the computer may increase the social class separation in the United States.

In any case, there is a new world to explore and resources to garner. I hope this will inspire you to try them out and aid you in your work. ❖

Glenn E. Meyer (gmeyer@trinity.edu) is originally from New York City and received his Ph.D. in Psychology from SUNY at Buffalo. He is currently Chair of the Psychology Department of Trinity University in San Antonio, Texas. He is the author and editor of two books (Perception of Illusory Contours, *and* SPSS: A Minimalist Approach) *and many journal articles (including* Science, Nature, Perception, Journal of Experimental Psychology, *and* Perception and Psychophysics). *He has worked several years with Integrated Research Services to develop computer aided instruction materials for substance abuse education.*

Some Available Web Browsers

Cello - available free on the Internet by anonymous ftp from ftp.law.cornell.edu. Cello is a Microsoft Windows application.

NCSA Mosaic - for information e-mail orders@ncsa.uiuc.edu. Available for Macintosh and Microsoft Windows.

Netcruiser - for information e-mail info@netcom.com. Available for Microsoft Windows.

Netscape Navigator - for information e-mail info@netscape.com.

SPRY's Internet In A Box - for information e-mail info@spry.com.

Publishers' Corner

McKinght, A.J., Langston, E.A., McKnight, A.S., & Lange, J.E. (1995). *The Bases of Decisions Leading to Alcohol Impaired Driving*. National Public Services Research Institute, 8201 Corporate Drive, Landover, MD, 20785. Phone 301-731-9891.

Meier, Scott. (1995). *If You Drink*. CAI software for the IBM PC. Alcohol education prevention tool for use with high school and college students. Published by Multi-Health Systems, Toronto, 1-800-456-3003.

Meyer, Glenn. (1995). Power & Effect: A statistics utility for Macintosh and Windows Systems. *Behaviour Research Methods, Instruments & Computers, 27(2)*, 134-138. This utility calculates numbers of subjects needed for various statistical techniques and various measures of effect size. For information e-mail gmeyer@trinity.edu.

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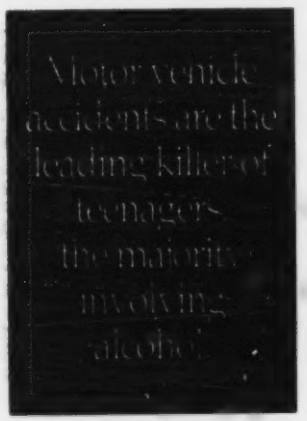
The PREVENTION RESEARCHER

A service division of Integrated Research Services

MODELS FOR EFFECTIVE PREVENTION

By Cheryl L. Perry, Ph.D.

The problems associated with adolescent alcohol and drug use are increasingly global as economies become more interdependent, substances become more available worldwide, and alcohol and drug effects hold particular appeal to young people. Among U.S. students graduating from high school, 63% have been drunk, 22% smoke cigarettes daily, 21% currently smoke marijuana, and an increasing number—currently 17%—have used inhalants. Although these rates have declined since 1975 (except overall alcohol and inhalant use), they remain unacceptably high and are associated with significant health problems.



Suicides, homicides, and unintentional injuries account for some 80% of U.S. adolescent deaths, and many involve alcohol and drugs. Motor vehicle accidents are the leading killer of teenagers, the majority involving alcohol. And among teenagers who smoke two or more cigarettes, 85% will become regular adult smokers with increased long-term risk for major illnesses.

Psychological health is also at risk with substance use, which has been shown to generate dependency, mood changes, impaired judgment, memory loss, and prolonged aimlessness. High levels of teenage drug use are associated with precocious sexuality, early marriage, and high-risk and even coercive sexual behavior. Work force entry with inadequate education, and other failures in the developmental tasks of adolescence with subsequent failure in young adult roles are also associated with substance use.

Primary prevention of drug use is clearly warranted by the multitude and magnitude of health consequences. From a behavioral epidemiologic perspective, the primary focus of prevention efforts ought to be placed on the three most widely used and misused drugs—tobacco, alcohol, and marijuana. These substances are tried first and most frequently, are associated with the greatest morbidity and mortality, and are ("gateway") predictors of other drug problems and dysfunctions. The question in prevention is not why but how.

FROM THE EDITOR'S P.C.

Dear Colleagues:

This is our fifth issue of the Prevention Researcher, which means we are very much alive and quite appreciative of the excellent response from our readers.

This Prevention Researcher issue focuses on "Alcohol and Drug Abuse Prevention." As mental health providers, researchers, and hands-on service delivery professionals, we are all deeply concerned with the prevention of substance abuse. For this issue we have called upon three outstanding researchers who have published widely in the prevention literature. I am delighted that they have taken the time to be contributors to our newsletter.

Dr. Cheryl Perry, a professor at the University of Minnesota, Dr. Patricia Bush, Professor Emeritus at Georgetown University School of Medicine, and Dr. Michael Goodstadt of the Addiction Research Foundation in Toronto and the University of Western Ontario, have all written pieces for this issue.

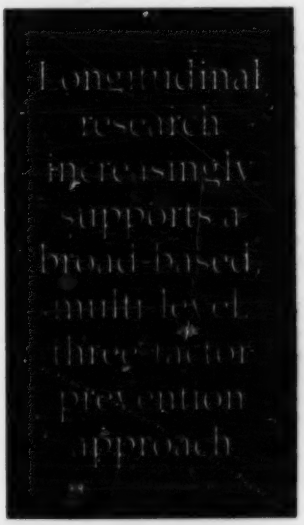
Each author has taken a critical look at the theoretical models of prevention and suggested ways that all of us might consider a review of intervention in our communities. The articles are thought provoking and extremely helpful in bringing us all up to speed with data on new substance abuse trends and shifts among our youth.

I hope you enjoy this fifth issue and decide to keep it in your library as a resource for future use. As always, we welcome your feedback and comments.

Steven Ungerleider, Ph.D.
Psychologist/Editor

The Social Influences Model

Early prevention efforts assumed that adolescents simply lacked information about the negative effects of substances, and that increased awareness would motivate rational decisions to abstain. This information model taught the adverse health, legal, and social consequences of alcohol, tobacco and other drug (ATOD) use, including fear arousal and clear moral messages. Later, "affective education" programs focused on unclarified values or deficient self-esteem. Some dozen years of evaluation research on these approaches concluded that they had little effect on substance use behaviors and may have even encouraged experimentation. Nevertheless, the information model continues as the predominant approach in most schools.



Current models of adolescent ATOD prevention are driven by social psychology and empirical findings on the antecedents of drug use. These models identify three levels of risk factors critical to the development of effective prevention programs: environmental, personality, and behavioral. The adolescent's social environment provides necessary conditions for ATOD use: pro-drug societal norms; observation of influential role models; social support systems that encourage use; access to alcohol, tobacco and drugs; and lack of nondrug alternatives. Accordingly, prevention efforts specifically address these factors by providing prosocial role models, normative expectations, peer influences and alternatives, and reducing access.

Experimentation with substances generally occurs in a social situation, yet not all teens in high-risk environments choose to experiment or to use tobacco, alcohol, or other drugs regularly. Thus, personality and behavioral factors may be critical in determining the adolescent's response to the environment. Placing value on conventional goals, and the ability to manage ATOD use situations or pursue nondrug alternatives, may be pivotal determinants. These personality and behavioral factors suggest that prevention strategies should include training in specific social and life skills.

Longitudinal research increasingly supports a broad-based, multi-level, three-factor prevention approach rather than concentrating on a single factor or subset of risk factors. These findings also suggest that ATOD use by adolescents serves specific functions for them, offering opportunities to challenge parental and societal authorities, demonstrate independence, signal entry into a peer group, or simply relieve developmental stresses. Accordingly, prevention efforts should attend to the functions served by drugs as well as social-environmental, personality, and behavioral risk factors.

Seven components

Most classroom-based ATOD prevention strategies derived from this model—labeled the "social influences model for primary prevention"—have seven major components, typically involving a series of six to twelve 45-minute classroom sessions:

(1) *Identifying short-term social consequences* of use, such as smelling badly, having an accident, or acting out-of-control. This generally is done through small group discussions so the "consequences" are age-group relevant.

(2) *Reasons why adolescents use substances* are explored, including a desire for fun, making friends, a signal of maturity, or a method of coping with personal problems.

(3) *Discovering that substance use is not a normative behavior* for young adolescents by comparing their expectations about peer use with actual data, and discussing their overestimates of prevalence.

(4) *Learning how these meanings are established in our culture* through advertising as well as peer and adult role models. Advertising methods to convince adolescents of tobacco or alcohol's functional values are presented through discussions of selected advertisements. Mock social situations are analyzed to identify types of situational influences.

(5) *Learning and practicing resistance skills* against these influences, and becoming competent in a variety of social situations. Students create anti-tobacco or anti-alcohol advertisements and role-play possible social encounters.

(6) *How problems associated with drug use affect their community* and their friends, with brainstorming ways to become more socially responsible.

(7) *Making a public commitment* (or setting a goal) to abstain near the end of most programs, which acts as a psychological anchor and creates an explicit intention not to use substances.

Peer leadership

All these activities are experiential, designed to require active participation, and are often led by trained peer leaders. The systematic use of peer leaders in ATOD prevention programs is a notable component. Several researchers have found peer-led programs to be significantly more successful in reducing onset and use rates than the same programs taught by the classroom teacher or other adults. In our model, each intervention classroom elects several students who are "liked and respected." These leaders are familiar, positive role models who provide key social information and not merely facts. They are trained to conduct more than half of the activities in the prevention program, particularly activities that involve sharing of social information. They lead small group discussions and brainstorming sessions, give directions for activities, report students' views to the class, and organize roleplays. Young adolescents can easily be trained to perform these functions, with whom peer leaders appear to be particularly efficacious.

Research on the Model

Most of the research evaluating applications of the social influences model has focused on early adolescent cigarette smoking and alcohol and marijuana use. These substances are usually first used at this age and appear to have particular appeal during the transition to adolescence.

Smoking Prevention

Several recent comprehensive reviews of the smoking prevention literature, including two meta-analyses, report positive results for the model in reducing the proportion of students who begin to smoke when compared with an equivalent or randomly assigned control group. In these studies, the impact on regular smoking ranged from reductions of 43-60%, with maintenance of these effects generally for 1-2 years. For example, an evaluation of the Minnesota Smoking Prevention Program (MSPP) found that after 4 years, a peer-led social influences program reduced daily and weekly smoking incidence by 35-50%, compared with adult-led, health consequences, or existing curriculum comparison groups. The effects of MSPP and other social influences programs appear to diminish over time, suggesting that additional booster education programs and community involvement might be needed during middle and later adolescence. Yet, even without booster sessions, the repeated success of these programs in at least delaying onset of tobacco smoking, across over 20 research studies, is encouraging.

> ...researchers have found peer-led programs to be significantly more successful ...than the same programs taught by the classroom teacher

Alcohol and Drug Prevention

The reported impact of the social influences model on adolescent alcohol and drug use has been more limited. Nevertheless, Project SMART, a peer-led social influence prevention program, was effective in delaying the onset of tobacco, alcohol, and marijuana use. Pentz reported a social skills intervention program had a positive effect on alcohol use and academic performance. Another study tested a social influences curriculum (Project Alert) across widely diverse socioeconomic and demographic school environments in California and Oregon. It indicated that tobacco and marijuana use could effectively be delayed but delay of alcohol use was more challenging.

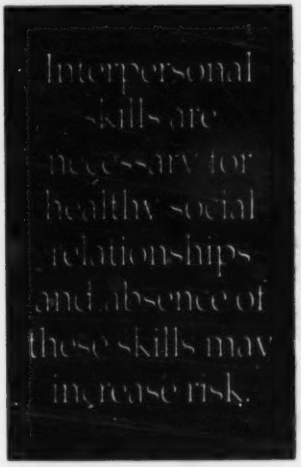
The WHO cross-cultural study

The relevance of U.S.-developed models to other cultures is an important concern in future global dissemination and prevention efforts. To examine this question, the Division of Mental Health of the World Health Organization (WHO) convened a group of investigators in 1985 to study the efficacy of the social influences model for alcohol education in four countries: Australia, Chile, Norway, and Swaziland. It thus represented four continents, four languages, two developed and two developing economies, and four cultural views of alcohol. Schools within each country were randomly assigned to peer-led, teacher-led, or control conditions. Overall, students in the peer-led program reported significantly less use of alcohol than did students in the teacher-led program or control groups at follow-up, independent of whether they were drinkers or non-drinkers at baseline.

Communitywide Approaches

Because adolescents' families and peer groups are their closest and most potent social systems, considerable attention to parental involvement with home-based programs and peer leadership in school-based social competency curricula will be critical in the future. These approaches will be strengthened if embedded in schools, communities, and cultures that reinforce consistent values and norms. For example, if parents and school programs teach skills to say "no" to precocious alcohol use or sex, yet these same health-compromising behaviors are modeled by key community role models (such as football players) or are portrayed on television as acceptable and inconsequential, then the dissonance

of these sources weakens the intended message. Alternatively, when programs are designed to be consistent at a community level, change is enhanced considerably. Thus, we need to involve various sectors, any of which might be ineffective in isolation but effective in combination with others.



A community-wide approach requires agreement on, commitment to, and coordination of the messages to be delivered and the strategies to be developed. Careful organization of these efforts requires support from key community leaders representing various sectors. This can take the form of community advisory boards, task forces working with the various program components, and training of lay leaders and volunteers. With youth, the existing school district structure and associated parent groups provide an obvious and necessary foundation for community organization. Other youth-serving and social service agencies can often provide complementary efforts, especially as schools become overburdened with mandates to solve societal problems. These agencies can be recruited to provide supervision and after- school programs in coordination with school and parental schedules, and can increase adolescent-adult contact and communication.

Using the media

Given the quantity and quality of print and electronic media consumed by adolescents, specific strategies addressing the medias' socializing role deserve high priority. It is again important that mass media strategies provide consistent messages and are coordinated with programs within the community's smaller social units. Teaching mass media discrimination ("media literacy") skills has been suggested as a critical social competency for children and adolescents to counterbalance negative messages.

A second strategy is to promote and incorporate health-enhancing messages and images in the existing mass media, either directly through planned and produced campaigns or indirectly by providing guidelines for monitoring and screening programs by radio and television stations. A third strategy is to limit exposure of adolescents to particular (or too much) mass media through assuring adequate supervision by caretakers and ensuring that excessively violent, sexual, or alcohol abusing images are not shown during after-school or prime-time hours. These strategies might serve to increase critical thinking about mass media, prevent excessive exposure to health-compromising images, and increase pro-social messages.

Evaluations of community programs

In the 1980s, several communitywide programs to promote cardiovascular health and prevent adolescent ATOD abuse were initiated to test the potential for large-scale change. In Finland, a formal evaluation of school-based versus school and communitywide smoking prevention programs was conducted. Significant differences in smoking onset rates were found between the no-program control students and the school-program-only students, as well as between the school-program-only students and those students in a school program who also reside in communities where non-smoking and smoking cessation were being promoted. In the Minnesota Heart Health Youth Program, greater and more sustained behavior change was found when a communitywide approach was used. Likewise, another project found that school programs were strengthened by coordinating the content of a program with a short television series as part of prime time news.

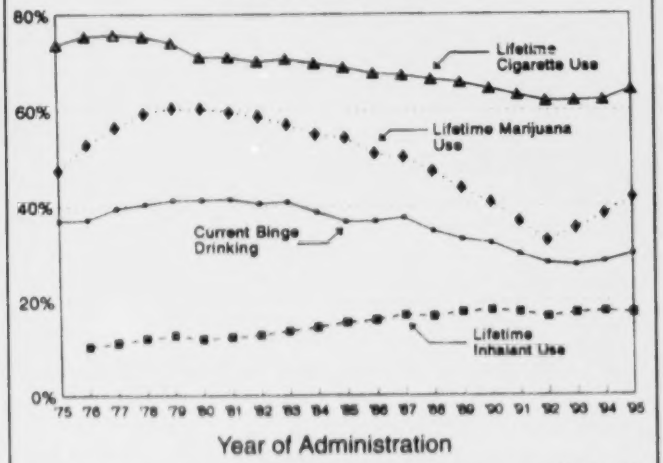
Life Skills Training

Botvin suggested an expansion of the social influences model to include other life skills that might be necessary to delay onset. Whereas most social influences interventions focus on specific skills for resisting the social and environmental pressures to initiate substance use, Botvin's Life Skills Training (LST) program also includes a general set of skills for promoting individual social competence in today's society. Interpersonal skills are necessary for healthy social relationships, and absence of these skills may increase risk. These include the ability to make logical decisions independently and to cope with anxiety and stress, which become increasingly important as adolescents increase their autonomy.

The LST program consists of 15-20 sessions for 7th grade students, with additional booster sessions in the 8th and 9th grades. The 7th grade is a time when students are experimenting with new behaviors and feel increasing pressure to engage in gateway drug use. The LST program's objectives are to (1) provide students with skills to resist direct pressures to smoke, drink, or use marijuana; (2) decrease susceptibility to indirect social pressures by helping students develop greater autonomy, self-esteem, self-mastery, and self-confidence; (3) enable students to cope with anxiety induced by social situations; (4) increase students' knowledge by providing them with accurate information concerning the prevalence rates of ATOD use; and (5) promote attitudes and beliefs consistent with nonuse. Because pressures to use continue into high school, a 10-session booster for 8th graders and a 5-session booster for 9th graders were developed which review and reinforce the 7th grade material.

Six progressively larger and more complex quasi-experimental studies compared adolescents utilizing the LST program (with peer leaders) with adolescents in similar reference schools. The results provide encouraging evidence for the LST program's efficacy in preventing smoking onset (40-80% fewer smokers at post-test), alcohol use (54% fewer drinkers in the past month, 73% fewer heavy drinkers, and 79% fewer getting drunk more than

Lifetime use of Marijuana, Inhalants & Cigarettes and Current Binge Drinking by Twelfth Graders



Data from The Monitoring the Future Study, conducted at the University of Michigan's Institute for Social Research and funded by the National Institute on Drug Abuse.

once a month), and marijuana use (71% fewer users).

Concluding Thoughts

The social influence models provide some optimism for primary prevention efforts, suggesting these are most effective when (1) the target behavior of the intervention has received increasing societal disapproval, such as cigarette smoking, (2) multiple years of behavioral health education are planned, and (3) community-wide involvement or mass media complement a school-based, peer-led program. Short-term programs and those targeting alcohol use have had less favorable outcomes.

Future research in primary prevention should address concerns of high-risk groups and high-risk cultures, such as lower income populations in the United States or countries that have large adolescent homeless populations. The utilization of adolescent leaders might be particularly useful in these settings.

A second major global concern should focus upon alcohol use and alcohol-related problems. In many communities adolescent alcohol use is normative and even adult supported. Thus, many young people are getting quite inconsistent messages about alcohol from their schools, peers, parents, and the media. This inconsistency may result in many tragic and avoidable deaths for young people, as well as long-term public health problems. Clearly, in the area of alcohol-related problems, community-wide involvement seems necessary.

A third direction for prevention research should address norms, access, and enforcement including policy interventions, such as the availability of cigarette vending machines, the ease of underage buying, or levels of taxation. The latter especially affects adolescents due to their typically limited financial resources. These policy level methods also signify to adolescents what adults consider appropriate, and may be necessary for effective primary prevention.

Finally, issues of employment, housing, health care, and the stresses of daily living may loom larger in some populations than do concerns with ATOD use. Yet, all of these factors form a complex web of cause and effect and it is difficult to deal with one without considering the others. Improvement in any of these areas should be considered a salutary development, consistent with global aims of promoting overall adolescent health and substance abuse prevention.

Cheryl Perry is a Professor in the Division of Epidemiology at the School of Public Health, University of Minnesota, and former Chair of the Community Health Education Major. Her research has centered on psychosocial aspects of health behavior. She has contributed significantly to our understanding of peer approaches to smoking and alcohol abuse and prevention. She is the recipient of several major awards.

EDUCATION & POLICY IN PREVENTION

By Michael Goodstadt, Ph.D.

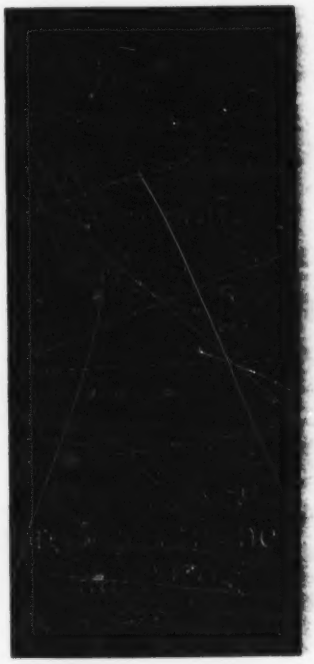
Schools face an array of interrelated problems including declining funds, aging facilities, shortage of specialized teachers, declining student performance and discipline, and continuing alcohol, tobacco and other drug (ATOD) use. Educators, politicians, and parents have been scrambling to find solutions, including deployment of "hard-line" policies which often collide with the liberating values of education which attempt to foster developing social maturity in a noncoercive environment. Within this context, I address four issues: (1) the current status of ATOD use in the schools; (2) past experience with educational efforts in prevention; (3) previous coercive strategies designed to deter problem behaviors; and (4) effective strategies that should be incorporated into future prevention efforts.

Background and Recent Trends

A substantial proportion of students begin drinking at an early age, experiment with illicit drugs, continue to use drugs on a regular or heavy basis, and experience problems as a result. National surveys indicate that by the senior year, most students (about 80%) have tried "more than a few sips of" alcohol, three in five have smoked cigarettes, over 40% have tried marijuana, and one in six have used

inhalants. Abusive alcohol consumption (see below) is reported by more than one in four seniors. However, although some recent upturns in prevalence rates of illicit substances have been in evidence, these rates have all declined—some substantially—since the late 1970s. Occasional ("during last year") marijuana use declined from a high of 51% in 1978 to 35% in 1995, and most drugs are not used regularly by most students. Frequent, more "abusive" drug use declined steadily and significantly throughout the 1980s. Daily use of marijuana decreased from a high of 11% in 1978 to about 2% in 1990-1993, but increased to 4 6% in 1995. Daily alcohol use declined from 7% in 1979 to 5% in 1987 to 3.5% in 1995; daily cigarette smoking dropped from 29% in 1977 to 22% in 1995; and current binge drinking (consuming five or more drinks in a row within the previous two weeks) declined from 41% in 1979 to 30% in 1995 (although an increase of heavy alcohol use has occurred among female adolescents in recent years). Discontinuation of drug use is common, and age of first use has increased somewhat for most substances since 1980 according to national household surveys.

Perceived hazards of ATOD use have also increased significantly since the late 1970s, although declining for some substances since 1991-92. In 1995, about three of five seniors perceived "great risk" in smoking marijuana regularly, while only 35% responded similarly in 1978; however, nearly four in five perceived this degree of risk in 1991. Almost 90% judged regular users of cocaine at risk compared to 68% in 1978, 25% considered one or two daily drinks risky vs. 18.5% in 1977, and two-thirds saw daily cigarette smoking of one or more packs as risky (vs. half in 1975). Thus, despite a recent upturn in some areas of ATOD use, program planners should avoid a panic-driven over-reaction to the problem of drugs in the nation's schools because overall use has decreased significantly. Rather, they should use the normative and behavioral changes observed from the late 1970s through 1991 as springboards and catalysts for further improvements. Prevention strategies, at both the educational and policy levels, should give explicit recognition and reinforcement to the large number of students who choose to avoid or discontinue ATOD use.



Planners should also attempt to understand the bases for long-term improvements achieved. Are changes due to a general reduction in society's ATOD use, greater media coverage and public awareness, improved drug education, community action, clearer positions taken by political and professional leaders, growing personal experience with the consequences of ATOD use, improved public health attitudes and acceptance of personal responsibility for one's lifestyle and health, growing conservatism in the country and among its youth, or changes in the economy? Understanding the dynamics of our long-term reductions in ATOD use will enable educators to capitalize on the most influential instruments for change when planning and implementing prevention strategies.

These overall positive trends should not, however, lead to complacency. ATOD use still is unacceptably common among American youth, and although rates remain well below those reached in the late 1970s, use of tobacco, marijuana, LSD, and inhalants have increased recently together with declines in perceived risk and social disapproval. A large majority still use alcohol, often dangerously and combined with driving, and even the positive trends are not found uniformly. Some areas continue to experience drug problems of crisis proportions.

Two Alternative Strategies

Drug abuse prevention traditionally has employed two major strategies: preventive education and/or social control through policy or regulation, including legislation. Historically, these strategies appear with predictable regularity. Society's response appears to be a function of (1) the perceived extent and seriousness of drug abuse, with higher perceived seriousness associated with sterner legal/policy measures, (2) the political and economic climate, with more conservative climates associated with legal measures to control both the supply and demand for drugs, and (3) perceptions about the effectiveness of educational strategies compared to legal/policy strategies. The two alternatives reflect opposite underlying assumptions: educational strategies reflect trust in the rationality, reasonableness, and goodness of young people, while legal/policy strategies reflect pessimism, assuming that coercive control is needed for a significant proportion of the population.

Effectiveness of Educational Efforts

Content and Process

The content, format, and media of ATOD education are inextricably related to each other and to program objectives. Characteristics and strategies employed are nearly unlimited, no single entity constitutes ATOD education, and no single assessment is possible.

School-based education has attempted to influence ATOD use at the two levels of personal and social competence. Personal competence has included ATOD information, decision-making and problem-solving skills, cognitive and coping skills, anxiety and stress reduction, values clarification, and normative education. Social competency

E4S

approaches focus on a variety of "life skills" including social assertiveness, either generally or specific to ATOD use ("refusal skills"). Many social competency programs use peer leaders as educators, counselors, role models, and group discussion leaders (see article by Cheryl Perry).

Evidence of Program Effectiveness

Research has consistently reached pessimistic conclusions about the effectiveness of ATOD education directed at substances other than tobacco. Educators can neither conclude with confidence that ATOD education is effective nor wholly ineffective. These evaluations teach educators a single, salutary lesson: inconsistencies in the impact of programs must be expected. Inconsistencies take three forms:

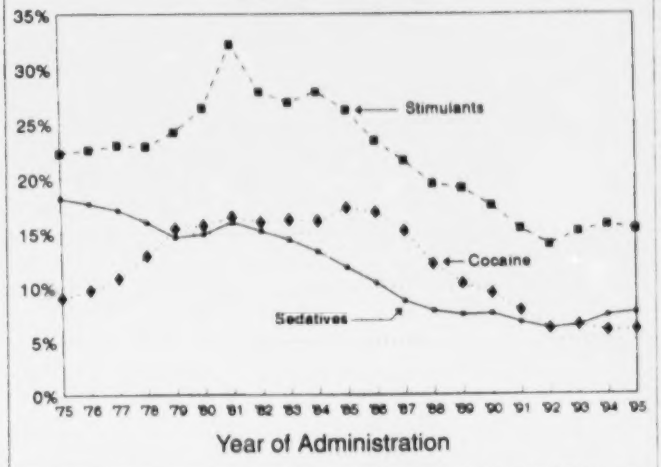
(1) Program effects vary among subgroups of students, and may differ as a function of participants' gender, age, school, and experience with substances.

(2) Program impact is inconsistent across outcome measures. Knowledge is more readily influenced than attitudes and behaviors. Of greater significance, improvements in knowledge will not necessarily affect attitudes, and improvements in attitudes might not alter ATOD use.

(3) Individual programs have produced both positive and negative outcomes. Programs have exhibited undesirable effects in one domain such as attitudes, while having a positive impact on ATOD use or expectations about future use.

Research suggests traditional educational approaches will not by themselves effectively prevent or reduce alcohol problems. Behavior is not influenced only by what one knows, but also by feelings, values, and the social and physical environment. ATOD use occurs in settings physically and psychologically removed from formal educational settings, and ATOD education must bridge this gap between the classroom and the social world with its settings and forces which are different and often stronger than those of the school. Traditional education represents only one weak force working against many powerful forces. These powerful forces include the legal and illegal, formal and informal. With alcohol, they include the beverage alcohol industry which has an economic interest in the purchase of its products, governmental and quasi-governmental agencies directly or indirectly responsible for promoting the manufacture, distribution, and sale of alcohol, and social norms and mores that encourage alcohol use. Thus, educators need to assist students in developing a repertoire of evaluation, communication and other social skills, and to include the community as both planners and targets of prevention efforts. Currently, increasing attention is being given to the role alcohol policy and regulation plays in developing a comprehensive approach to prevention.

Lifetime use of Stimulants (amphetamines), Sedatives (barbiturates), and Cocaine by Twelfth Graders



Data from The Monitoring the Future Study, conducted at the University of Michigan's Institute for Social Research and funded by the National Institute on Drug Abuse

ATOD education will be effective only for some of the people some of the time. Some students have decided not to use drugs, others expect to use, others no longer use, and some use occasionally, regularly, or to the point of causing problems. Programs for each group should be tailored to educational objectives, populations, settings, and strategies. Effective educational approaches also must consider the competing or reinforcing properties of noneducational forces, including community and peer norms and public policies.

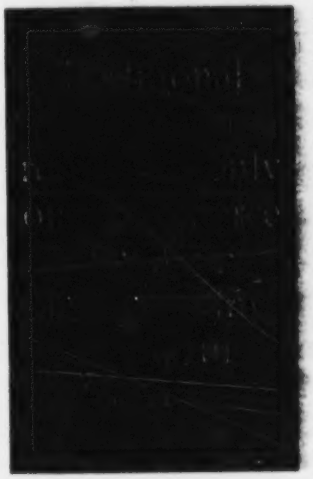
Effectiveness of Policy & Legal Measures

Schools develop and implement policies to control ATOD use in settings which differ in philosophies and content. Some resemble employee assistance programs, providing a continuum of programs and services from primary prevention to provision of treatment services. Other policies incorporate threat of punishment for ATOD use or possession on school premises. Extreme policies approximate environments analogous to military or penal operations. Policy differences arise from (1) perceived and actual differences in local conditions and ATOD problems, (2) differences in educational and political philosophies, and (3) differences in understanding the social psychology of human behavior. Objective evidence detailing the impact of school policies is scant. Without more systematic research, it is impossible to definitively ascertain the effectiveness of school ATOD policies.

Deterrence of ATOD Use

Evidence of the effectiveness of legislation in preventing ATOD abuse is neither

encouraging nor consistent. Three conclusions can be offered. First, many laws and regulations are aimed at limiting ATOD availability, use, and abuse. Second, liberalization of alcohol laws increases availability which, in turn, increases alcohol use and abuse. Conversely, laws and regulations play a significant role in controlling average level of alcohol use and abuse in a population. Third, limits exist to a law's effectiveness in controlling individual ATOD use. Drinking and driving legislation, for example, is effective only when the perceived likelihood of detection and the perceived severity of the punishment are high. Anti-marijuana legislation appears to be an ineffective deterrent as judged by student surveys, detailed research studies of the deterrent effects of marijuana laws, and examination of the impact of decriminalizing marijuana possession in various states.



General Effectiveness of Deterrence

In addition to the literature that specifically examined the impact of laws targeting ATOD use or abuse, an extensive, more general literature has explored the effectiveness of law in deterring other unwanted behavior. This literature has direct relevance to policy efforts to control ATOD use within educational settings. This body of thought and experience can be summarized:

(1) The threat of legal punishment can have a "general" effect in reducing the likelihood of a behavior in the first instance, and the imposition of punishments can have a special or particular effect in reducing the likelihood that the punished behavior will be repeated.

(2) The deterrent effectiveness of law is a function of (a) the expected certainty of detection and punishment, (b) the perceived severity of the punishment, and (c) the expected speed of detection and punishment.

(3) Expected certainty of detection and punishment is probably a more potent factor than perceived severity or speed of punishment.

(4) Deterrent measures do not equally influence all potential actors. It is unclear whether threat of punishment is effective only with those who are responsive to social norms, or whether it also is effective with those less responsive.

(5) Social factors, including perceived normative support for a behavior and perceived social consequences of detection and punishment, are consistently more powerful in influencing behavior than perceived reinforcement contingencies (expected certainty and severity of punishment).

(6) Effectiveness of legal threats is also a function of (a) self-perceived morality of the act, e.g, murder vs. parking offenses, (b) self-perceived desirability and reinforcing properties of the prohibited behavior, (c) availability of equally desirable alternative behaviors, and (d) the deviant orientation of the individual.

Failure of deterrence theory to predict or explain the occurrence of prohibited behavior has led to more socially oriented frameworks. Social Control Theory postulates that delinquency is a function of the personal (internal) and social (external) rewards that, through socialization, are expected to result from a behavior. Attachment and commitment to conventional groups such as family and school, involvement in conventional activities, and belief in the legitimacy of the social and moral order are of special importance to prosocial outcomes.

Delinquency and ATOD prevention programs based on social control theory emphasize reinforcement of bonding to conventional social groups such as family and school. Internal controls may be underdeveloped during the child's formative years or may be weakened in later years. The power of external controls can be weakened by disruption, disorganization, or disintegration of salient social groups such as the family, the school, or the community.

Effective Strategies

Two conclusions summarize the review of educational and policy strategies. First, neither traditional ATOD education curricula nor school policies by themselves will effectively prevent ATOD abuse. Second, education and school policies must incorporate the norms of the community into their planning and implementation.

In isolation, education and school policies appear to conflict. Education attempts to provide an environment and information through which youth can develop and internalize socially approved values and, thereby, exhibit desirable behavior. In contrast, school policies emphasize external conformity, with less attention to internalization of norms. However, education and school policies can complement and strengthen one another. While school policies can contribute to an environment within which educational objectives can be more effectively pursued, ATOD education can promote understanding and acceptance of school ATOD policies, rendering their implementation more effective.

School policies have a legitimate role in (1) expressing the school's and community's norms and expectations about ATOD use, (2) explicitly defining the punishments for violating these norms, (3) reinforcing compliance with them, and (4) pressuring those who would not otherwise comply. School policies will be effective if they are accepted as legitimately reflecting the norms of significant groups such as family and peers. Education can play a significant role in this respect.

Draconian policies such as the threat of physical counterforce, search and seizure, and expulsion might benefit the overall operation of schools with severe ATOD problems in which educa-

tional goals are seriously compromised. However, draconian methods without the support of other educational measures on the need for policies might produce external compliance without internalization of social norms. Without this internalization, compliance is unlikely to generalize to situations in which the threats are inoperative. Furthermore, draconian policies unsupported by noncoercive strategies may teach force as an effective or acceptable approach to personal and social problems. School policies should be supported by education that emphasizes the importance of the values the policies are attempting to protect, such as the value of learning.

Removing noncompliers from school might increase the social costs of ATOD use if the problem is transferred to settings which are even less amenable to control, such as the street or the workplace, settings moreover which are not designed to teach skills for effective and lawful functioning in society.

Finally, school policies, like other laws, can have an intrinsic educational function. As an expression of society's concerns and priorities, they can have a significant impact on behavior, and conformity to law can change attitudes (e.g, desegregation), either through resolving behavior-attitude dissonance, or from the rewarding properties of the behavior itself.

Conclusion

Research and theory related to both ATOD education and deterrence argue for their joint development and implementation in school settings. Either strategy alone will be ineffective. The clear formulation of the community's values, expectations, and sanctions will provide a setting prerequisite for the pursuit of the schools' educational goals. However, without students' understanding and internalization of underlying reasons, policies will militate against a principal objective of education - student development of an internally integrated set of behavior standards. Exclusive reliance on policies will, at best, result in conformity by the least problematic students and, at worst, will hinder development of independently motivated, mature young adults.

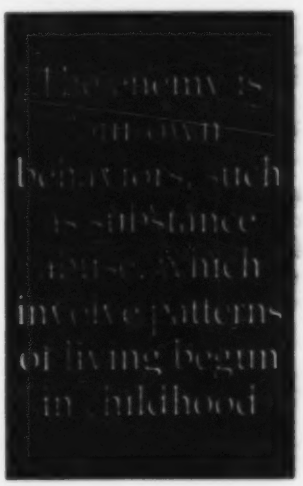
Conversely, reliance on ATOD education without support from the school, family, peers, and community will be ineffective. School policies developed with full support of students, parents, and the community will provide the social and psychological context within which formal education will be most effective.

Dr. Michael Goodstadt is Acting Director of the Centre for Health Promotion at the University of Toronto and Senior Scientist and Principal at the Addiction Research Foundation. He was previously director of the Division of Prevention at Rutgers University's Center for Alcohol Studies. Recent interests include health promotion and reducing the impact of personal and environmental risk factors associated with alcohol/drug abuse.

Developmental Issues in Prevention

By Patricia J. Bush, Ph.D.

The first public health revolution was waged upon the environment and was conquered by public programs: immunizations, improved sanitation, and clean food and water. In the second public health revolution, the enemy has been engaged but may prove more difficult to conquer. The enemy is our own behaviors, such as substance abuse, which involve patterns of living begun in childhood that evolve into risks of premature morbidity and mortality in adulthood. Recognition of the link between adult health problems and childhood and adolescent behaviors has given new emphasis and urgency to prevention and health promotion programs for children that affect everyday behaviors, rather than traditional health education programs that merely impart information.



To understand and prevent drug abuse, a conceptual framework is needed that includes general health-related behaviors and a developmental perspective on children's thinking about health. Several areas of theory and research shed light on children's development of health and illness concepts, which have important implications for substance abuse prevention.

Theoretical Bases

Cognitive Development and Health Beliefs

Children don't think like adults, and the concepts we teach may therefore miss the mark with them. Piaget identified stages of children's causal thinking from "preoperational" (about 3 to 6 years) through "concrete operational" (about 7 to 11 years) to "formal operational" (about 12+ years). The preoperational stage is characterized by magical thinking, circularity, emphasis on the self, and difficulty in dealing with more than two factors in causal relationships. In the concrete operational stage, children begin to think relationally, to generalize to and from others, and to reverse causal explanations. Children at this stage may have problems integrating several variables in causal

relationships. The formal operational stage is characterized by an ability to think hypothetically and abstractly. At this stage, the child is capable of integrating multiple factors in understanding health and illness. Stage theory proposes that children are not merely passive products of their environments but active participants who construct their own concepts and behaviors.

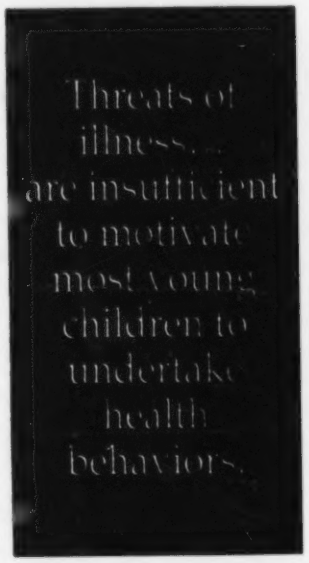
This suggests that stages of development result from the child's cognitive maturation as it operates within the child's environment. The behaviors, attitudes and messages of parents and peers are understood only within the child's limits of cognitive and perceptual maturity. Thus, adults cannot provide young children information about health and illness based upon logical explanations of causality and expect them to infer appropriate behavior. Children apply their own systems of logic when making sense of their worlds. (For example, if a child hears that bad drugs mess up the mind, who can fault the child for inferring that the mind can be fixed by having a doctor open up the head to take the bad drugs out.) The cognitive developmental level of each target population needs to be assessed and reflected in the design of curricula for prevention programs. Specific health beliefs and their relevance include the value placed by children on "health," as well as their autonomy in making decisions or influencing caretakers about health behaviors.

While there is consensus that intervention programs should be directed to the child's developmental stage, there is no evidence that this increases the probability of behavior change. Providing developmentally staged health information may be insufficient to secure the goals of health promotion, but it's nevertheless a necessary component.

Behavioral Intention Theory

It has been proposed that measures of specific behavioral intentions can predict actions. Intentions, in turn, are predicted by (1) attitude—the person's beliefs about a behavior and evaluation of its consequences—and (2) subjective norms regarding the behavior, based upon perceptions of others' beliefs about the behavior and motivation to comply with these norms. Intentions to perform relatively public behaviors —healthful or harmful— may be more influenced by social norms than are relatively private behaviors. These may be more influenced by personal characteristics or the attitudes of significant others.

This model (1) recognizes behavioral intention as an important, measurable predictive variable, (2) includes both reference group norms and the child's motivation to comply with them, and (3) emphasizes specific behaviors which may prove more useful with children who are not prepared cognitively to deal with abstractions and inferences. However, this model may be an unreliable predictor of behavior in children. It presumes abilities to anticipate the consequences of behaviors and to recognize that different individuals and groups have different normative beliefs. These are developmental processes not evident in young children. Further, the child must have enough information to develop a behavioral intent, but fixity of intent is unlikely in young children. In middle childhood, the child would need concrete experiences concerning the topic in question, and would not likely be able to generalize this information until approximately age 12.



Social Learning Theory

Social Learning Theory (SLT) emphasizes behavior more than cognition, especially the influence of significant others in modeling and reinforcing health behaviors. SLT further emphasizes environmental cues, learned expectancies including the values placed on behaviors or their consequences, the internalization of reward systems, and behavioral capabilities without which health behaviors cannot be learned. When integrated with an emphasis on shaping behavioral intentions, SLT provides the principal basis for the Social Influences Model discussed in this issue by Cheryl Perry.

Evidence relevant to these conceptual systems has been collected in several studies including our longitudinal "KIDMED" study of the development of behaviors, beliefs, and attitudes about medicines and abusable substances in children from age five through adolescence. We used five sources of information: interviews with children, mothers, and teachers; review of school health records; and visits to neighborhood commercial establishments. The initial KIDMED study sample consisted of 420 K-6 District of Columbia public school children at schools representing three socioeconomic levels. Some findings from our and other studies on children's thought processes, behavioral intentions, and environmental influences are described below.

Research Findings

I'll now report some important findings from our KIDMED and other studies relevant to the above theories.

Developmental Factors

- Age and cognitive developmental stage are highly correlated, but cognitive developmental stages of children relative to concepts of health and illness are likely to lag compared to other conceptual areas.
- Only one-third of eighth graders in our study had reached the formal operational stage of development. Most children younger than 8 or 9 cannot respond to health education programs that rely on causal explanations, potential events, inferences, or personal feeling states.
- Children in all stages understand health as conformity with lifestyle rules.

• Knowledge may be necessary but is not sufficient. Health promotion programs for children should be responsive to what children already know or believe. Information prematurely presented would be useless. In our study, only 25% of kindergartners and 45% of first graders, but nearly all fourth to sixth graders, knew what marijuana was. About 50% of the children rated marijuana as a "worse" drug than cigarettes. Cigarettes were judged "worse" than alcohol.

• Perceived vulnerability is stable by the time children reach school age but is not related to their preventive health behaviors, probably since young children have difficulty associating behaviors with consequences that occur in the future.

• Threats of illness occurring in the future are insufficient to motivate most young children to undertake health behaviors. Moreover, interviews with 1st and 3rd grade children about their health behaviors indicate they believe they are either well or they are sick. These beliefs do not encompass the concept of a continuum of health to illness.

• More affluent and older children feel more in control of their health status. This tends to stabilize about age 11. "Health locus of control" was not a significant predictor of children's use or intentions to use substances, but children who felt more in control expected to use medicines less for everyday illnesses.

Environmental Models & Reinforcements

Family Behavior and Attitudes

• Traditional authoritarian methods of child rearing were less effective in inducing healthful practices than developmental methods which encourage responsibility, independence, information use, and reasoning. Children granted autonomy by their parents demonstrate better health practices than children of more controlling parents.

• Mothers' health beliefs and behaviors are weakly correlated with those of their children. As children grow older, parental behaviors become less influential relative to the childrens' peers.

• In our sample, a parent who smoked doubled the probability that a young child intended to smoke. Another longitudinal study found that smoking among subjects in their late 20s was associated with educational level and general parental interest in childhood, but not with parental smoking or admonitions not to smoke.

• The number of family members using an abusable substance was associated with a child's use or intention to use specific substances. For alcohol, the probability increased as the number of family users increased. For marijuana, only 4% of children in households with no users used or intended to use, while one user in the family increased this rate to 23% and two or more users to 39%.

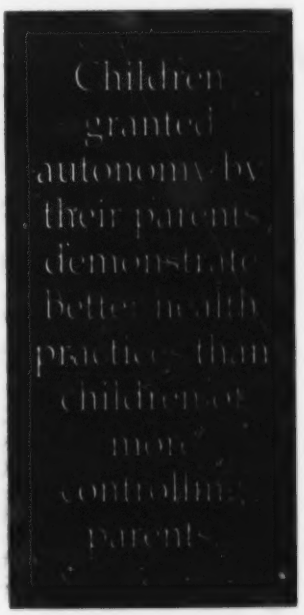
• Children have been viewed as recipients of health care, with decisions made by adults. In fact, however, children have considerable autonomy in decisions such as food choices when away from home and parents. And of the 420 children in our study, 80% said they had access to medicines in their homes, 70% said they took medicine by themselves, 40% said they got medicine from somewhere in the house by themselves, and 12% had purchased over-the-counter medicines.

• General family dysfunction and management problems are a factor. Young children who were identified as rebellious and lacking in social skills, whose homes were disorganized and unconventional, and whose family interactions were discordant, showed heavier drug use in their teens.

Peer, School, and Media Influences

• Although family influence on children's smoking decreases relative to peer influence as children move into adolescence, the family can increase or decrease peer influence. For younger children, perceptions of peers' use was a significant predictor of children's intentions to smoke cigarettes and marijuana, and to drink alcohol, but were less predictive than parental use and the child's involvement in this use - for example, by lighting mom's cigarettes or getting dad a beer.

• When asked their sources of information about abusable substances, younger children are likely to cite parents, television, and school in that order. Older children are more likely to cite peers.


Children granted autonomy by their parents demonstrate better health practices than children of more controlling parents

• Other researchers investigated the impact of television commercials on children's health-related beliefs and behaviors, and found that a majority of fifth and sixth graders believed them. Children watch television programs and commercials at a very high rate, and although 9-year-olds were more aware and more distrustful of advertising than 4-year-olds, the older children did not resist the influence of the television messages any better than the younger children.

Individual Factors

• Low self-esteem has been associated with adolescent substance abuse, but is not predictive in younger children.

• Children are far more competent in decision-making than adults perceive them to be; however, there is little evidence that children skilled in decision-making are more likely to choose healthful behaviors.

• A school-age child has a set of health-related behaviors, some of which may be maladaptive and targeted for modification. Behavioral capability, as well as behavioral intention, is critical to a child's performance, but states of readiness to perform a health-related behavior are seldom evaluated.

• Personality factors may predict positive or negative

outcomes in different environments. In a poor, black Chicago neighborhood, aggressiveness, intelligence, and readiness for school were positively correlated with use of drugs, alcohol, and cigarettes 10 years later.

- A gender difference in risk-taking emerges between ages 9 and 11. In our sample, willingness to take risks that might result in injury and illness was associated with use and intentions to use abusable substances.
- Some young children having experienced illness or injury felt that it was a form of punishment inflicted for some reason imagined by the child. This was most common among children high in anxiety, independent of age.

> "...researchers have found peer-led programs to be significantly more successful ...than the same programs taught by the classroom teacher"

Summing Up

Basic researchers want to know how things came to be, while health education researchers want to know how to change things. Ideally, one would move from basic to applied research. Most school-based children's health promotion programs are based on a composite of variables. Because program developers and evaluators have not known which variables were most important, their fear of ignoring an important group of factors has caused them to design health promotion programs using a pool of factors which complicates efforts at systematic evaluation.

Correlations are generally weak between the health related attitudes or beliefs of mothers and those of their children. Acquisition appears to follow a developmental pattern with children becoming increasingly socialized to the wider attitudes and values in their environments.

Risk-taking has shown relationships with children's health-related behavioral intentions and behaviors. But how are these formed? Are they stable over time? Can they be influenced? And how do they relate to other variables, especially "self" variables, decision-making, and coping skills? Not enough is known about the importance or interrelationships of these variables. Important variables may not have been included in either basic research or health promotion programs. Altruism is an example of a variable that might motivate children, but is ignored in health promotion programs.

The key for future research may be to increase the focus on what children do in the absence of parents. Parents are very involved in many areas of children's lives, but the evidence is clear that children make a significant number of independent health decisions. Research on children's health behaviors is best when it considers the contribution of both parents and children within their social environments but recognizes the contribution of children themselves.

Whatever conceptual schemes are selected to guide children's health promotion programs, cognitive development should be considered prior to design, implementation, evaluation, and interpretation of effects. Health education programs produced by adults unaware of children's developmental stages, and administered to large groups of children at various stages, may be a waste of resources or even counterproductive.

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Alcohol Use Among High School Athletes

By: Christopher N. Carr, Ph.D., Shannon R. Kennedy, Ph.D., and Kenneth M. Dimick, Ph.D.

Historically, society has held numerous myths concerning the drinking and drug-related habits of high school athletes. Assuming that high school athletes tend to avoid alcohol and other drugs because they are in training or don't have the time to become involved are two such myths. However, these misconceptions are now being confronted with the increasingly frequent disclosures by athletes concerning their problems with substance use. In addition, the recent publicity surrounding the drug-related deaths of several famous professional athletes has fueled the public interest in examining the role which alcohol and other drugs play in the lives of athletes.

Even though the use of alcohol and other drugs by adolescents has been so well documented that some feel it has become one of society's major problems, few studies have been aimed at examining substance use among high school-aged athletes. The purpose of this article is to examine the adolescent athletes' involvement with alcohol and other substance use, as compared to their non-athlete peers. Our research examined several questions in this regard: (1) Do high school athletes, both male and female, differ from non-athletes in the frequency of their use of alcohol? (2) Do male high school athletes differ from female high school athletes in their frequency of their use of alcohol? (3) Do high school athletes, both male and female, differ from non-athletes in experiencing alcohol intoxication? (4) Do male high school athletes differ from female high school athletes in experiencing intoxication from alcohol?

We surveyed a large mid-western, suburban high school of approximately 2,000 students. The sample of 1,713 students represented 86% of the total student body, 557 sophomores, 614 juniors, and 542 seniors. The sample included 908 males and 805 females. Of these, 337 males and 204 females self-reported to be school athletes, thus leaving 571 males and 601 females in the non-athlete comparison group. Due to the high proportion of white students in the high school (97%) and on the athletic teams (100%), demographic data regarding race were not used in the study. The item "use of alcohol" was operationally defined as drinking alcohol more than once a month while "experimentation"

FROM THE EDITOR'S P.C.

Dear Colleagues:

I want to take this opportunity to welcome some of you to your first issue of the Prevention Researcher, our newsletter which focuses on timely and cutting edge prevention issues. Previous issues have focused on DUI intervention models, domestic violence, gang prevention strategies, and prevention resources on the Internet.

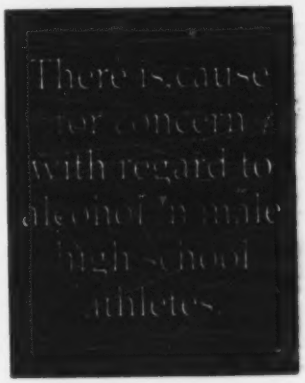
This issue focuses on "Athletes At Risk" and their alcohol and other drug use. The common myth is that athletes (especially teenagers in middle and high school programs) are immune from the dangers associated with alcohol and other drug use. The most recent research paints a different picture of this myth.

The focus of this issue of the Prevention Researcher seems timely with the 1996 Atlanta Olympic Games approaching in the next two months. The popular media reports almost daily about our next "Olympic hopeful" testing positive for some banned substance and now eliminated from competition. It is important for us to take note of this phenomenon, but more importantly to understand the origins of substance use including performance enhancement drug use that might rock the level playing field. It does not just happen when athletes reach the pinnacle of success; it may originate early in one's athletic career, even during elementary or middle school years.

I hope you enjoy this issue and, as always, please feel free to fax, e-mail, or even use the old fashioned method and write us with your comments and feedback. Also, please visit us on our World Wide Web Site at: http://www.integres.org/prevres/

Steven Ungerleider, Ph.D.
Psychologist/Editor

was defined as drinking once a month or less (see Figure 1 for exact question wording).



We compared male athlete's and non-athlete's frequency of alcohol consumption. Half (50.1%) of the male athletes reported the regular use of alcohol compared to 41.3% of the non-athletes, a statistically significant difference. In addition, more male non- athletes (10.8%) reported a total abstinence from consumption than did male athletes (7.5%). Finally, male non-athletes tended to be more experimental (47.9%) than male athletes (42.4%) in the consumption of alcohol. Among females, however, the results demonstrated no significant difference in the frequency of alcohol consumption between athletes and non-athletes as may be seen in Table 1.

Comparing male and female athletes on the frequency of alcohol consumption, no statistical significance was noted. Also, no statistically significant difference existed in the intoxication between athletes and non-athletes for both sexes (see Table 2). However, a significant difference existed between the male athletes who reported experiencing intoxication (73%), compared to the female athletes (58%).

Our research indicates there is some cause for concern with regard to alcohol use in male high school athletes. The demonstrated tendency of male high school athletes to use alcohol more frequently than their non-athlete counterparts would appear to put these athletes at a greater risk for harmful results. There appears to be no difference in the frequency of use between female athletes and non-athletes.

These findings support the view that the "macho" image assumed by many male athletes may include behaviors designed to prove one's ability to drink often and hard. Also consistent with the findings in this study is the assertion that the same influences do not exist in female athletes. In addition, previous findings demonstrating a tendency for males to drink larger quantities of alcohol than females in a single setting appear to also apply to male and female athletes.

Secondary education professionals such as coaches, faculty, athletic directors, and trainers are those who are most frequently confronted with situations involving high school athletes who demonstrate alcohol use. Since this study indicates that male athletes may be at greater risk than non-athletes for developing problems, it seems imperative that alcohol and other drug prevention and intervention programs be a part of the ongoing training for professionals in these areas.

Finally, our findings indicate a need for additional

TABLE 1

Comparison of High School Male and Female Athletes and Non-Athletes on the Frequency of Alcohol Consumption

	None	Experimental	Use	Total
Male Athletes	25 (7.5%)	143 (42.4%)	169 (50.1%)	337
Male Non-Athletes	60 (10.8%)	268 (47.9%)	231 (41.3%)	559
Female Athletes	15 (7.4%)	103 (50.5%)	86 (42.1%)	204
Female Non-Athletes	45 (7.5%)	303 (50.7%)	250 (41.8%)	598

TABLE 2

Comparison of High School Male and Female Athletes and Non-Athletes on Perceived Experience of Intoxication

	Yes	No	Total
Male Athletes	246 (73%)	91 (27%)	337
Male Non-Athletes	374 (67%)	185 (33%)	559
Female Athletes	118 (58%)	86 (42%)	204
Female Non-Athletes	361 (60%)	237 (40%)	598

FIGURE 1

For purposes of this study, only the demographic information and responses to two of the items were used. These were:

1. "Regarding my own consumption of alcoholic beverages, I
   a. have never consumed any alcoholic beverage."
   b. have consumed an alcoholic beverage only in connection with communion or some other religious activity."
   c. have experimented with alcoholic beverages, but as a rule do not partake of them in social situations."
   d. consume some form of alcohol no more than once a month."
   e. consume some form of alcohol two to three times a month."
   f. consume some form of alcohol once a week."
   g. consume some form of alcohol two to six times a week."
   h. consume some form of alcohol at least once a day or more."
2. Have you ever been drunk? a. yes b. no

The item "use of alcohol" was operationally defined as more than once a month (items e-h), while experimentation was defined as once a month or less (items b-d).

research with athletes in this age group. Future studies involving both student athletes and non-athletes of various racial and socioeconomic groups, and involving the use of other drugs such as marijuana and cocaine, would appear to be particularly critical in identifying the substance related risk for the adolescent athlete. The positive benefits of participating in youth sports have long been promoted and accepted by our society. Yet, the risks of participation must also be identified and addressed in order to best prepare and assist those professionals who work with our younger, less notable athletes.

Christopher M. Carr, Ph.D. is at Ohio State University; Shannon R. Kennedy, Ph.D. is president and CEO of Merit Behavioral Care in Park Ridge, New Jersey, and Kenneth M. Dimick, Ph.D. is a professor of Counseling Psychology at Ball State University. *Portions of this article have appeared in a paper published in* Journal of Alcohol and Drug Education *(1990), 36(1), pp. 39-43. Permission to reprint portions has been granted by the authors.*

PSYCHOLOGICAL FACTORS IN ATHLETES' SUBSTANCE USE

By Steven R. Heyman, Ph.D.

This article examines key psychological factors relating to athletes' use of alcohol and other drugs. While it is assumed that athletes are vulnerable to the same range of factors that cause recreational substance use in the general society, there are factors that can take on particular significance for athletes.

Sensation Seeking

Although drugs can be classified in a number of ways, there are two broad categories: stimulants and depressants. Some drugs fit fairly clearly into one or the other category: barbiturates are depressants, and amphetamines and cocaine are stimulants. Although alcohol is a central nervous system depressant, it has a mixed effect on individuals, depending on quantity and personal factors. Due likely to its ability to release inhibitions and its initial effects on blood circulation, alcohol can appear to act as a stimulant. Marijuana does not fit well into either category.

Zuckerman and other researchers have published a variety of studies on what has been called sensation seeking. Some individuals have a particular ability to tolerate higher levels of sensory and neurological stimulation. In fact, these individuals are likely to seek out such stimulations. There has not been a systematic study of athletes by sport and sensation seeking, but several studies have shown high risk sport athletes, in particular, to be more sensation seeking.

Zuckerman has reported that higher sensation seekers are more likely to use stimulants, while lower sensation seekers are more likely to select depressants. Alcohol and marijuana did not have clear relationships to personality types, likely due to their mixed psychological and pharmacological actions. In one study, researchers found few differences between athletes and non-athletes in drug usage at five universities; but at one university athletes were more likely to use amphetamines, while at four universities they were less likely to use barbiturates.

Not all athletes will be sensation seekers. However, certain sports requiring high levels of stimulation, sensory input, and response, may be more likely to attract higher sensation seekers. Such individuals would be likely to be more successful in such situations.

It may not be a coincidence that cocaine appears to have become so prominent in athletic circles. Within athletes as a group, and perhaps particularly in sports such as football, basketball, hockey, and boxing, there may be a greater number of high sensation seekers. These are individuals who neurobiologically are programmed to want, tolerate, and enjoy higher levels of sensory stimulation, such as can be achieved by using cocaine and other stimulants.

Having found these levels of stimulation available through drugs, it may be more difficult to abandon the immediacy and intensity of these experiences. Cocaine could be of particular danger for those who want and can tolerate greater levels of stimulation. Not only does cocaine fulfill these needs, but as with any stimulant, it will create feelings of satisfaction, well-being, power, and even omnipotence, depending on the individual and the dosage.

There is no evidence to indicate that athletes, either by sport or as a group, have a greater inherited tendency towards alcohol use. However, for the individuals with such a predisposition, being placed in an environment that encourages drinking, and particularly frequent and heavy drinking, may trigger the problem situation. It should be noted that the athletic environment often encourages frequent and heavy drinking, and can create the worst environment for athletes who come to it with a predisposition for use.

The Sport World

Social learning theory, particularly the work of Bandura and Walters, has helped us to understand much about how people learn their social behaviors, and the situations under which they express these behaviors. We might think that the sport environment, with its emphasis on health, would present an ideal environment to discourage the use of alcohol and other drugs. Perhaps for a long time these behaviors were inhibited in athletes due to positive factors in the sport environment and peer relationships.

Due to the pressures of competition, beginning in the 1960's, the sporting environment began relying on drugs to facilitate athlete performance. Amphetamines were used by players to enhance performance and alter mood. Other drugs were used to reduce pain and swelling, to allow for continued participation. Steroids were actively encouraged to facilitate muscle growth and strength, as well as to enhance competitive mood.

The intent of the sporting environment relative to these drugs was, no doubt, specific to competition. The encouragement to use drugs to perform and to feel better, also suggests more broadly that the use of drugs is acceptable. Vulnerable individuals, in an environment that did not encourage drug use, might have stayed away from such usage. The encouragement to use drugs by significant individuals may well have weakened their safeguards and disinhibited their controls.

The Macho Role

To a great extent in our society, alcohol use has been tied to the male sex role: macho men can drink a great deal, and often. To prove how tough they are, athletes may therefore be even more vulnerable to alcohol and other drug use than might other groups. One great football star, when asked what he did to prepare the night before a winning Super Bowl performance, is reported to have said, "Got a bottle of booze and a broad." Certainly macho. The effects on younger athletes in particular can be very negative. Alcohol use by sport celebrities is not new—the press has simply been more open about reporting it. Until recently, however, this use has not been consistently presented in a negative light.

In reviewing advertisements for certain types of alcoholic beverages, particularly for beer (which can be advertised on television, unlike hard liquor), we find that a high percentage of promotion advocates are athletes. A report published in the journal *Physician and Sports Medicine* stated that 90% of the spokespeople for a major light beer were athletes. Similarly, we find beer manufacturers are among the major sponsors of sporting events. The report found that one of every 4.2 commercials televised during network sports was for beer. The message is quite clear: if you are an athlete, you can, and should, drink beer often.

The athletic system makes it clear at sporting events that alcohol should be consumed. What child, going to baseball, football, boxing, hockey and basketball, will not see a number of the spectators drinking beer, and often in great quantities? This again is likely to have a profound impact, and the behaviors observed can be easily expressed later, particularly if the sport environment

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continues to give mixed messages about alcohol and other drug use.

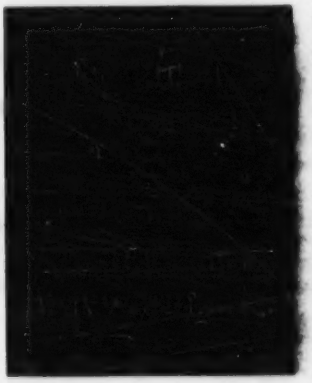
In our society we generally use alcohol to celebrate victories and to drown sorrows. The athletic environment has not said to this tradition "no, not here." In fact, the opposite appears to have been the case. How often in locker rooms, after a victory, do we see athletes gulping from bottles of champagne? How often, in interviews with winners and losers, do athletes talk about going out, implying or stating they will get drunk? All too often, unfortunately, and this sets a model for younger athletes.

Stress Reduction

To a great extent, many individuals who use alcohol and other drugs will give stress reduction as a reason. Athletes face unique stressors, often to greater extent than their non-athlete counterparts.

In school, at all levels, athletes are typically required to complete the same coursework as non-athletes, but are also required to spend additional time in practice and competition. Some can handle both sets of requirements nicely, and can deal with the typical developmental issues confronting them. Others will find meeting the demands of all of these situations considerably more stressful.

As athletes get older, their non-athlete peers may be concentrating on careers and families, usually with time schedules that are reasonably compatible. Meanwhile, people on the athletic track may find schedules in conflict with other events in their life. The hours of practice, competition, and travel, may well interfere with one's personal life, and all too often, athletes postpone career considerations until after the athletic career is ended.



Competitive athletes are aware that their careers will eventually end. Few will go on to college teams, and even fewer will go on to professional sports. Elite athletes are aware that each year younger athletes are waiting to replace them.

For both younger and more mature athletes, the constancy of practice, travel, and preparing for peak performance in competition adds to the stress they experience. Quite often athletes, and the pressures they experience, may not be understood by non-athletes, adding to the sense of isolation and loneliness that they may have.

Some athletes, as they experience the stressors they encounter, may experience anxiety. Others, as the result of physical and/or psychological exhaustion, may experience depression. There are medically prescribed drugs for both of these. However, to admit to these feelings would be to admit to having problems. Taking recreational drugs may alleviate these feelings, but because of the social situation the presence of problems can be denied.

As the sport world became more oriented to the use of chemicals to enhance performance, it may have opened the door for athletes to use alcohol and other drugs to reduce stress. While the moderate use of alcohol among adults might not be a serious issue, its use for stress reduction can become quite problematic. As long as the stressors persist, a person, through basic conditioning, may associate relief with alcohol and other drugs and become dependent on these substances.

Not only may alcohol and other drugs be used to reduce the feelings of stress, they can also be used to avoid the recognition of stressful situations. It is this writers' clinical observation, and it is shared by others, that athletes, as they face career termination or disruptions due to accident, injury, or replacement, are more prone to increasing rates of alcohol and other recreational drug usage. This seems motivated in part to reduce stress, but also to avoid dealing with the reality of situations.

For some, the extent of the stress may require not only an excessive amount of alcohol or drugs for temporary relief, but the psychological and physical relief may only come after the exhaustion of excess. One athlete seen in therapy by this writer, for example, would expend considerable energy in mental and physical preparation for competition. When the competition was over, however, he found himself unable to relax. Considerable amounts of alcohol and cocaine were consumed, not only for immediate gratification, but for the purposes of inducing an exhaustion, and only that brought a great sense of relief. Considerable therapeutic work was required to understand the situation and develop more positive personal patterns.

This article offers a snapshot view of one of our more serious social problems. This problem sees no age, gender, racial, or ethic discrimination. It affects all athletes across the spectrum.

The late Dr. Steven Heyman was a professor of psychology at the University of Wyoming. *This article is adapted from a chapter in* Athletes at Risk: Drugs and Sport *by Tricker and Cook: Wm C. Brown/Times Mirror Publications. Permission has been granted by the publisher to reprint this article.*

PREVENTING SUBSTANCE USE IN YOUNG ATHLETES

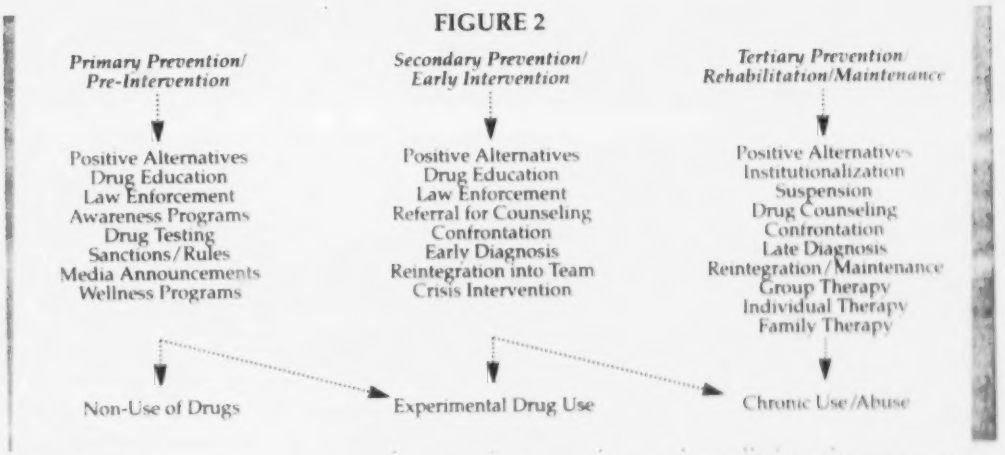
By Ray Tricker, Ph. D.

The Framework

The concept of prevention and intervention, in general, seeks to help individuals to avoid, reduce, and eliminate drug use. This applies equally well to the use of drugs in athletics as it does in any other walk of life. Figure 2 illustrates the various types of prevention and intervention strategies which may be considered during the pre-experimental and more serious chronic stages of drug use. Prevention strategies are designed to reduce the supply and lessen the demand for drugs. Additionally, they are designed to avoid the health-threatening consequences of athletes' actions.

Primary, secondary, and tertiary prevention approaches to drug use were earlier linked with the community health movement in the 1950's and the 1960's. For the purposes of athletics, these three different forms of prevention are applicable with efforts which are designed to reduce the number of athletes who use drugs.

FIGURE 2



Primary Prevention

This form of prevention is designed to dissuade athletes from using drugs altogether, before the experimental stage. Primary prevention techniques can help these student athletes to clarify their thoughts and opinions about drug use and give them opportunities to consider ways to avoid using drugs.

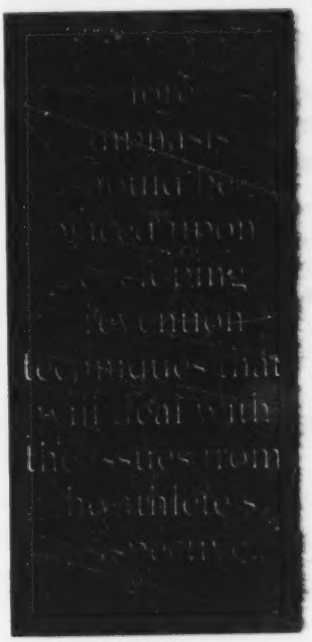
There are many primary prevention strategies. Some include drug education, peer counseling, peer projects, and the formation of a strong sense of unity and support within the team framework. They also include a wide variety of alternatives which have a strong sport psychology basis, including many forms of positive visualization and mental practice. These prevention approaches should be coordinated with the drug testing program and the sanctions and rules related to drug use which are established within the school environment.

Secondary Prevention

Secondary prevention or early intervention measures are necessary following confirmation that an athlete has tested positive for the first time for using an illegal substance. This first occurrence may be treated as an early stage of use and often involves referral for diagnosis, counseling, and, where necessary, crisis intervention to prevent further deterioration which occurs with prolonged continuance of the habit. The most important aspect of secondary prevention is to assist an athlete to regain his or her place as an athlete and student, and to establish a healthy, ongoing lifestyle.

Tertiary Prevention

Athletes who have a serious drug problem require specialized, intensive help which involves rehabilitation and maintenance. Such intensive psychophysiologically based treatments may require athletes to become temporarily hospitalized. The treatment protocols in this setting include diagnosis, detoxification if necessary, individual and group counseling, and group interaction sessions with other athletes who have a drug problem. Following up to 28 days of intensive treatment, an athlete would enter the maintenance phase with periodic checks on their progress at an outpatient center. Obviously it is important to do everything possible to help an athlete to reestablish some personal goals and a meaning in



life. Many athletes have avoided relapsing back into negative habits by providing support as drug educators and prevention counselors for others who are recovering.

Athletics and the Public Health Model of Prevention

As an applied conceptual model for understanding drug use in athletics, the Public Health Model of Prevention would view the problem as a relationship between the athlete as the host, the drugs of choice in athletics (steroids, amphetamines, cocaine, alcohol) as the agent, and the sporting arena and the athlete's social background as the environment.

The Host: Within the context of this conceptual model, the following factors apply to the athlete in eliminating drug use in sport:

- Provide a solid framework of support for athletes which protects the athlete against a win-at-all-costs attitude. This requires the support of administrators, alumni, coaches, team trainers, team physicians, and team members. Athletes should not be allowed to compete when any doubt exists regarding injury or sickness.
- Improve interpersonal coping skills; helping athletes to develop a balanced perception of the demands placed upon them as student athletes.
- Provide more comprehensive educational experiences which make a substantial contribution to the athlete's ability to develop effective decision-making skills.

The Agent: In relation to the drugs of choice, prevention activities should:

- Demonstrate more clearly that drugs are not magic bullets. Apart from the degree of seriousness of the consequences, all drugs produce side effects which may impair or neutralize optimal performance.
- Establish tighter controls over the indiscriminate use of the painkilling drugs (Lidocaine, Procaine, Xylocaine, etc.). By masking pain, these drugs may place athletes at further risk for more severe injury.

The Environment: Within the complex interactions that take place within an athletic organization, prevention activities should include:

- Help injured athletes to still feel part of the team and able to contribute to the team's progress.
- Develop clear rules and sanctions regarding the use of drugs during the pre- and post-seasons.
- Encourage the enablers, who have provided drugs or denied the existence of the problem, to make a positive contribution to an athlete's development.
- Establish a policy which clearly rejects excessive alcohol consumption as an acceptable way to relax from the demands of sport.
- Provide a healthy environment for athletes which involves a social atmosphere that discourages drug use and improves interpersonal relationships, as well as through rules and regulations.
- Encourage opportunities for open and honest communication between athletes and the athletic department as a whole. Develop a strong sense of caring.
- Continue to look for effective ways to deal with stress within the athletic environment.
- Continue to monitor and assist the progress of student athletes outside sport in other areas of their daily lives including the school environment.

Supply vs. Demand Reduction

Most of the effort to control drug use in sport has been directed towards reducing the demand for substances through establishing drug testing programs, drug education programs, counseling, and treatment. Some researchers have also directed their attention to understanding the sources from which athletes obtain their drugs. Anderson and McKeag have reported that athletes obtain their supplies of drugs largely from physicians other than the team physician (25% of steroids), teammates, friends, relatives, and public gymnasia. From a historical perspective, attempts to reduce the supply of drugs have presented many difficulties. The drug problems facing society today are sufficient to illustrate the struggles which involve the control of illicit drug trafficking. Answers to the problem of drug use in sport will not be found by focusing simply upon closing down sources of supply. More efforts are needed to help athletes themselves decide to reject drug use and start using healthier, less risky alternatives to achieve their goals.

Therefore, more emphasis should be placed upon developing prevention techniques that will deal with the issues from the athlete's perspective. Athletes must be encouraged to become actively aware of the ramifications of substance use in athletics. The rewards can be obtained from developing positive coping and decision making skills, and recognizing the importance of clarifying their personal values in relation to substance use. The efforts to educate athletes about self-responsibility and drug use require support from everybody involved in the educational system. The athlete's support network must place the athlete's health as the top priority, even before the win-loss record.

Athletes will care little for drug use prevention if a "win-at- all-costs attitude" is the only important factor in their sporting orientation. The increasing demand for steroids derives more from a "be bigger and stronger to win" philosophy, than it does from a "joy of competition" approach to sport. Alcohol use is another example that can be related to the pressures of sport. The demand in this instance stems from the need to relax

or celebrate away from the sporting arena.

Theoretically Based Approaches

The Information Model: Many of the student/athlete-centered programs have evolved from the information model. The inherent assumption is that once informed of the facts, from a personal and legal standpoint, athletes will be deterred from using substances illegally. There is evidence that the presentation of information alone can lead to increases in drug experimentation. It has also been reported, by evaluators of information based programs, that a greater familiarity with the drug at the informational level reduced negative stereotypes of the drug and actually increased positive attitudes towards its use.

The Individual Deficiency Model: This model provides assumptions about an individual's inclination to use drugs in response to some deficiency; an athlete may perceive that through using steroids, that a deficiency in strength or size can be quickly overcome. The programs related to this viewpoint stress improving peer relationships, the ability to communicate with others, and most importantly, developing a positive self-image. This usually involves a values clarification dimension, in which individuals are encouraged to clarify their own values and to reformulate personal values that will be more appropriately self-serving.

The Social Pressures Model: This is a relatively more recent approach to primary prevention. It assumes that an athlete is under a great deal of pressure from peers to get involved in drug use. Anderson and McKeag reported that friends and relatives were the source of supply from which up to 74% of the athletes surveyed obtained their supply of illicit drugs. In the case of peer pressure, peers may not necessarily be team members but friends with whom an athlete usually socializes away from the team. Therefore, the focus of programs that fall within this model are directed towards helping the athlete to withstand many different forms of social pressure. The term refusal skills has become associated with this approach to describe attempts used in counseling and educational programs to teach individuals to refuse invitations from others to become involved using illegal drugs. Encouraging results from this approach have been reported from both the college and high school levels.

> Traditional education represents only one weak force working against many powerful forces.

The Importance of Family Involvement: The involvement of the family has not been dealt with extensively in relation to prevention. This is important because the family unit may be an essential link to the athlete's problem especially when drug use already exists within a family. Another example of family involvement may occur when parents are informed of their son's or daughter's drug problem. Heitzinger has reported that 20% to 30% of athletes surveyed have a family member or parent with a drug problem. For many of these athletes sport provides a valuable outlet, but this may not necessarily help them to completely deal with their inner feelings about the existing problem in their family.

> Athletes and coaches are in an important position to notice unusual changes in a team member and offer help when possible.

When an athlete has a problem with drug use, the assumption of a family systems approach is that the athlete's involvement in drug use is a reflection of the dysfunctionality of the family. By bringing the athlete together with other family members, a skilled therapist can assist the family in restructuring relationships, opening up blocked paths of communication, and reestablishing positive emotional bonds within the family. A number of treatment programs have reported positive outcomes based upon the effects of family oriented interventions.

Suggestions for Prevention

Athletes and coaches spend a great amount of time together and therefore are in an important position to notice unusual changes in a team member and offer help when possible. The symptoms of drug use vary widely, but if disregarded may lead to more serious, chronic problems. The U.S. Olympic Committee on Substance Abuse, Research and Education published the following guidelines for recognizing the symptoms of drug use:

- Unusually secretive behavior, especially on the telephone.
- Extreme mood swings from sullen to oversensitive, easily provoked, aggressive behavior, irritable, unaffectionate, uncooperative, and hostile.
- Loss of interest in school, sports, or practice.
- Increased lateness and/or absence from work, school, or practice.
- New and peculiarly different circle of friends.
- Noticeable loss of weight.
- Always out of money. Need for increasing amounts of money. Shoplifting accusations, stealing, etc.
- Avoiding responsibilities, chores, frequently returning home later than expected, missing meals and important occasions.
- Deterioration and change in dress, physical appearance, and interests.
- Refusing to discuss friends and strongly denying or defending issues relating to drug use.

• Beginning to show mental deterioration, disordered thinking, heightened sensitivity to taste, touch, or smell.

• Paranoid behavior. Insists parents and/or teachers are unfair. Claims others are "telling."

Although they would like to offer help, many athletes and coaches feel uncomfortable about approaching a team member about possible drug use. However difficult it may appear, some situations can be considerably improved when someone cares and offers some help. Thompson, Young, and Grassard offered the following suggestions in this regard:

1. *Have the courage to say something.* Try to overcome personal fears and feelings and remain objective, even though the team member may be defensive or angry.

2. *Confront with Facts - Not Feelings.* Avoid angry confrontation and confront an individual with the facts as they have been observed.

3. *Be Sure to Communicate a Caring Attitude.* Show genuine concern. Idle curiosity will simply create greater distance from the issues and ruin any positive interaction which can take place.

4. *Know Where to Go for Help.* Take the time to know where further help can be found. Become familiar with the available resources on campus, counseling assistance, and physicians specializing in drug use problems.

If we can place any value upon current media attention to drug use in sport, it is clear that a better organized effort is needed to deal with this problem. Awareness of the problem has grown rapidly since the first testing of amateur athletes at the 1972 Olympic Games in Munich, Germany. Although increasing amounts of time and effort are being directed toward finding solutions, the dilemma that faces sport as a result of drug use shows no sign of diminishing. As we face the future, (including the upcoming 1996 Atlanta Olympics this July), perhaps the leadership for dealing with this problem will not come so much from coaches and athletes, as from individuals who are less directly involved on the firing line of athletic competition.

Nevertheless, the ultimate outcome of any efforts to prevent drug use in athletics will be closely related to the degree to which coaches and athletes are aware of the problems and are willing to participate in efforts to solve them.

The importance of developing long-term efforts to solve the problem of drug use by student athletes cannot be overemphasized. This is poignantly outlined when we consider the general tendency of people and organizations to respond to crisis with short-term measures. This has long been a barrier to prevention programs. For this reason, current prevention efforts should be regarded as small—but important—beginnings towards the significant contribution that is needed to preserve the special and unique opportunities that sporting involvement can offer. Hopefully, we will continue to acknowledge that the ideals embodied in untarnished sporting excellence have been handed down to us by many outstanding athletes, and are surely worth preserving.

Dr. Ray Tricker is an associate professor of Public Health at Oregon State University in Corvallis. He has conducted extensive research for the NCAA and published widely in the prevention and intervention literature. Portions of this article have been published in Athletes At Risk: Drugs and Sport *by Tricker and Cook: Wm C. Brown/Times Mirror Publications.* *Permission has been granted by the publisher to reprint this article.*

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Sports, Drugs, and other Societal Reflections

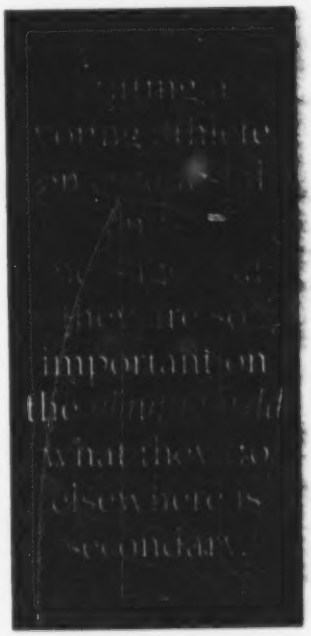
By Steven Ungerleider, Ph.D.

All three of the previous papers articulate a serious problem in society today. Dr. Heyman discusses the role of sensation seeking and its relationship to substance use among our young athletes today. The research team of Carr, Kennedy and Dimick look at gender issues based on their survey data of alcohol use among male and female athletes as well as non-athletes. They briefly discuss the problem of the "male macho" image as it relates to promoting and enabling alcohol use in athletics. Finally, Dr. Tricker sets forth a framework of preventive interventions in the athletic environment. In evaluating the "public health" model as it relates to preventing substance use, Tricker notes quite elegantly:

> "We need to improve the coping skills among our young athletes... helping men and women to develop a balanced perception of the demands placed upon them as student athletes. And we need to provide a healthy environment for young athletes which involves a social atmosphere that discourages drug use, while encouraging improved interpersonal relationships."

These are important concepts that I feel need further discussion. One of the more serious issues that clinicians report in the academic literature is the notion that athletes are "put on a pedestal" at an early age. From the time that it is perceived that a young man or woman can shoot a basketball, run fast around a school yard, hit a top spin tennis shot, or leap over a bar, they are labeled as talented and gifted, and seen as an upcoming superstar "jock."

This expectation may increase the temporary self-esteem of a young person (especially one who might be struggling in the classroom) but long-term, it provides for an enabling environment. This environment lends itself to enabling or supportive behavior that gives a young person a false sense of security and a lack of identity about "who" they really are as opposed to "what" they can achieve on the playing field. This sense of misguided identity lends itself to alcohol and other substance use among our young athletes. Our society is very advanced when it comes to promoting our young athletes as stars, it makes all of us feel good, but what does it do for the self-image of young athletes? How do they really feel about themselves?



Putting a young athlete on a pedestal is dangerous for a number of reasons. One, it may allow them a false sense of security and hope. Two, it doesn't allow teachers, parents, administrators, and other caregivers a chance to offer honest and open feedback about their behavior. Three, it sends a message to the athlete that they are so important on the *playing field* that what they do elsewhere is secondary. Four, it suggests to our young men and women that *they may live by a different set of rules*, a separate standard of conduct and ethics, and that we do honor a double standard. In fact, putting a young athlete on the pedestal sends horrendous messages that get reinforced and multiplied by teachers, parents, law enforcement, and siblings as years go on. No doubt, this behavior sends confusing, often double messages to our youth about alcohol and other drug use.

The "double standard" of conduct is an issue that emerges at every level of sport. We begin to see it happen with middle school kids and young athletes who appear to have natural ability and talent. Often coaches will single out a youngster and offer special treatment in the classroom because they are exceptional on the playing field. In high school, this gets played out to greater extremes; after all, this is where the "winning is everything" mentality begins. Coaches are looking for their best athletes in high school because often the exceptional athlete (or athletic team) will define the identity and image of a high school, creating a certain mystique about the school state-wide. Rarely do you hear about a high school that is defined by its "world class" music program, its chess champion, or its debating team!

In college, the mystique gets greater, the prestige larger, and the money attached to winners and winning, a serious contender. With college athletics, those athletes who reside on the pedestal and operate in the world of "double standards of conduct" are seen as bigger than life. These young men and women can affect the character and prestige of an academic institution. Along with this lack of identity, absence of healthy coping mechanisms and inability to develop effective decision making skills, a young athlete is at risk for using alcohol and other drugs.

When we began planning this ***Prevention Researcher*** issue, I consulted a number of colleagues who have expertise in the field of sports psychology and sports medicine. Two giants in the field are individuals

with whom I consult on a regular basis for guidance and advice relating to athletes and at-risk situations.

Dr. Robert Voy was the chief medical officer for the United States Olympic Committee (1984-1989). He is now in private practice in Nevada and continues to work with athletes and their families around substance use and high-risk behaviors. As a physician, he has worked within the entire spectrum of athletics: From youth sports to gold medalists in the Olympic Games. He has seen athletes severely disabled because of their drug use, both due to recreational and performance enhancement drugs. As an expert in the field, Dr. Voy suggests that society take a good hard look at the enabling behaviors that support athletes' "special treatment" from the early stages in their career.

He also suggests that prevention specialists carefully evaluate the training models and motivations of those who provide support services to athletes. One example that comes to mind is the tragic case of the Canadian 100 meter sprinter Ben Johnson who set a world record and won the gold medal at the 1988 Seoul Olympics. Within 24 hours of that achievement he was stripped of the medal and his title for testing positive for anabolic steroids. In the aftermath of the Canadian government's investigation of this event, a number of doctors, trainers, pharmacologists, agents, and coaches were questioned and some were implicated through their involvement, support, and training techniques of Mr. Johnson.

Professor Bruce Ogilvie, formerly of San Jose State University and presently affiliated with Stanford University Medical School, has been considered by some to be the "father of sport psychology." As a clinical researcher, Dr. Ogilvie has also observed the entire spectrum of athletes at risk. Whether consulting with the NBA Portland Trailblazers or a local Pee Wee football league in northern California, Ogilvie has noted similarities in how we approach the "values and ethics" of sport. He has noted on many occasions that "enabling" behaviors that support anti-social conduct, including substance use, may have origins from different sources. These sources might include a trainer or team doctor who has received orders from team management that an athlete must be ready to play under any circumstances. This includes being hurt, emotionally disabled, or physically incapacitated. After all, doctors are always available to provide the magic pill for whatever the ailment.

Ogilvie notes that this phenomenon occurs at the community level with youth sports programs as well. Fathers wanting to assist their youngsters with being a "bit stronger and more fit" will go shopping for the right physician. This medical doctor might (with some persuasion) prescribe an anabolic steroid to supplement the conditioning work and recovery time of this "growing" athlete. In some parts of the country, this has been a common practice until recently when the FDA re-evaluated various con-

trolled substances including anabolic steroids. Both Voy and Ogilvie are quick to note that no one individual is typically to blame for the enabling behaviors and those factors that contribute to athletes' substance use. It is, however, a collective responsibility to be shared among all of us who support the notion of a "winning at all costs" mentality. Within the public health model of agent, host, and environment, it is the interaction of all three parts that will lead to healthier coping behaviors and enhanced peer resistance skills. All three parts will assist in strengthening positive decision making efforts and lead to a healthier community at large.

Steven Ungerleider, Ph.D., is a licensed psychologist and director of Integrated Research Services, Incorporated. He is the author of three books including **Beyond Strength: Psychological Profiles of Olympic Athletes** *with co-author professor Jacqueline Golding of the University of California, San Francisco. Dr. Ungerleider has published articles in both the prevention and sports psychology domains.*

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Ungerleider, S. (1996). *Mental Training for Peak Performance*. Rodale Press: Emmaus, Pennsylvania. Dr. Ungerleider has created a personal guide to mental practice and visualization training for use by all athletes, trainers, and coaches.

Coming In Future Issues

- Suicide Prevention
- Juvenile Delinquency
- Cross Cultural Prevention
- Teen Pregnancy and S.T.D. Prevention
- Community Prevention Models

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A HUMAN ECOLOGICAL APPROACH TO ADOLESCENT SUICIDE

By Carolyn S. Henry, Ph.D.

A variety of biological, psychological, sociological, and social psychological models are used to understand adolescent suicidal behaviors. Even with this range of theoretical approaches, it can be challenging for mental health professionals to integrate this information into practice and policy. This article briefly describes traditional theories of adolescent suicide, introduces the human ecological model, provides examples of risk factors at each level of the human ecological system, and advocates prevention and intervention at multiple ecosystemic levels.

> While the characteristics of suicidal youth are important, they do not occur in a vacuum.

Traditional Theories of Adolescent Suicide

Biological theories propose that adolescent suicide emerges from foundations such as the biochemical components of psychiatric disorders, the biological transmission of suicidal risk across generations, maternal illness during pregnancy, a difficult birth process, or the physical illness of adolescents. The psychoanalytic approach serves as a predominant *psychological theory* suggesting that suicidal adolescents present external reasons for their suicide attempts when the internal reason is to deal with rejection and deprivation that resulted in the loss of love and support. More specifically, the stresses of puberty place youth at risk for deficient ego development which may result in self-destructive tendencies reflecting an unconscious death wish resulting from anger turned inward. An alternative psychological approach posits that suicidal behaviors result from the inability to develop the qualities necessary to cope with stress.

A key *sociological theory* is Durkheim's view that within a society, the rates of suicide are based upon the degree of integration into social institutions and regulation within the society. Suicidal risk differs depending upon the current societal conditions, including: (a) a lack of common beliefs, values, traditions, and views among members of a society that results in feelings of social distance and responsibility for managing burdens alone; (b) the absorption of youth into social institutions which increases the risk for suicide under conditions beneficial to society; (c) societal change which places individuals in new circumstances where the old moral rules no longer apply and social restraint declines; and (d) inflexible social constraints which stifle individual goals.

FROM THE EDITOR'S P.C.

Dear Colleagues:

The Prevention Researcher newsletter is now in its third year. I am pleased to report that our last issue, "Athletes At Risk" was a terrific success. We received wonderful feedback and an unusually high number of requests for additional copies of this issue.

Our web page is getting some very strong "traffic" as we find that folks are visiting us there and reading our snapshots of "prevention themes." If you haven't checked us out, take a spin on the internet and look at our creative world wide web site.

This issue focuses on "The Prevention of Adolescent Suicide." Our guest contributors are Carolyn Henry, Ph.D. of Oklahoma State University, Patrick Malley, Ph.D., Francis Kush, Ph.D., and Roxanne Bogo all of the University of Pittsburgh; Dalia Adams, M.A. and James Overholser, Ph.D. of Case Western Reserve, and Anthony Spirito, Ph.D. of Brown University School of Medicine.

We have asked these prominent clinical researchers to join us for an overview of risk factors and an understanding of practical models in preventing adolescent suicide. With suicide attempts soaring among our youth, our editorial team felt it was important to take a serious in-depth look at prevention and intervention models that might be useful to all of us in the mental health profession.

As always, I encourage you to give us feedback on current issues and past themes as well. As many of you have done already, please feel free to fax, e-mail, visit us on our World Wide Web Site at: http://www.integres.org/prevres/ or just drop us a note in the mail. Until the next issue, have a great fall!

Steven Ungerleider, Ph.D.
Psychologist/Editor

Social psychological theories emphasize how situational factors relate to adolescent suicidal behavior. Social learning theory, for example, suggests that suicidal adolescents imitate the behaviors of other family members and friends. They learn from the suicide attempts of family members that this is an acceptable means of addressing life's problems or gaining attention. The family systems model, on the other hand, presents adolescent suicide as a symptom of family dysfunction. Adolescents who attempt suicide may unknowingly help their families avoid painful issues, such as acceptance of a family member's leaving home, or diverting attention from other family conflicts. Suicidal adolescents become the focal point of their families, diverting attention from other family problems. If suicidal adolescents recover, other family members may develop symptoms that become the focal point unless interaction patterns within the family are changed.

An Overview of the Human Ecological Approach

Human ecological theory provides a comprehensive integrated multidisciplinary approach to understanding adolescent suicide that incorporates individual, environmental, and social system factors which may be related to suicidal behaviors. As Garbarino has noted, adolescent suicidal behaviors may be viewed as the result of difficulties that arise in the "interplay of biological, psychological, social, and cultural forces at work in transforming a child into an adult." These are conceptualized as levels of the human ecological system.

The first level of the ecosystem is the *organism*, or the individual adolescent. While the characteristics of suicidal youth are important, they do not occur in a vacuum. Each adolescent is a member of several *microsystems*, or immediate settings such as the family, peer group, school, and work. The lives of adolescents, however, vary in the combinations of microsystems and the interrelationship of these microsystems. The links between the microsystems are described as *mesosystems*. For example, in rural areas, parents are likely to know the families of the peers, teachers, and employers of their adolescents. In contrast, adolescents living in a suburb of a major metropolitan area may have friends, teachers, or employers whom their parents have not met.

The broader social environment may indirectly influence adolescents. For example, the *exosystem* refers to indirect influences such as the parents' employers, school boards, and the media. Exosystems occur within the context of *macrosystems*, or broad institutional or ideological patterns that include the economic, social, educational, medical, legal, and political systems within a culture or subculture.

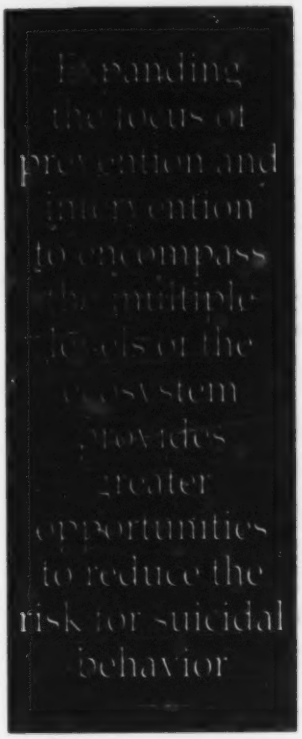
Adolescent Suicide Risk Factors in the Human Ecological System

At the organism level, consideration is given to the demographic and psychological characteristics of adolescents that indicate increased suicidal risk. Risk factors include feelings of hopelessness; difficulty in adapting to change; depression; feelings of loneliness; a sense of personal inadequacy, failure, or low self-esteem; social isolation; substance use or other self-destructive tendencies; cumulative stress; or previous suicide attempts or threats.

Family microsystems have been viewed in many ways ranging from "passive victims" of disturbed youth, to "causing" the suicidal behaviors through inappropriate interaction patterns. Specific family factors that relate to increased suicide risk include: loss of a family member; feeling ignored by parents; economic insecurity; parental alcohol use; depression or suicide attempts in other family members; high parental expectations; residential mobility; ineffective family communication; rigid family dynamics; adolescent perceptions of low parental marital quality; recent fights with family members; poor family conflict management; low levels of bonding among family members; difficult sibling relations; experiencing abuse or neglect; observing spousal abuse; parental suicide attempts, and family violence; adolescents beginning their own families; and adolescent pregnancy. Further, married adolescents have higher suicide rates than single adolescents.

Adolescents also are usually part of several other microsystems involving peers, school, and delinquency-related settings. A common peer predictor of adolescent suicidal behavior is problems with a girlfriend

or boyfriend. At school, the most serious suicide attempts tend to occur among successful students, with less serious suicide attempts being more frequent among those who are failing at school. High expectations for achievement and differential development between intellectual and social skills are possible explanations for the finding that gifted girls are the largest category of school-related suicide attempters.


Expanding the focus of prevention and intervention to encompass the multiple levels of the ecosystem provides greater opportunities to reduce the risk for suicidal behavior

Suicide rates among youth in adult jails and juvenile detention centers appear to be higher than in the general population of youth, with higher rates for youth in adult jails than those in juvenile detention centers. Other research found that for youth in a correctional facility, conflict with parents was a significant predictor of suicide attempts and the rate for females was higher than that for males. Suicide attempts are also more frequent among delinquent youth with a history of depression or hyperactivity.

For each adolescent, the mesosystem is composed of the total set of microsystems. Due to the vast range of variations in adolescent mesosystems, one example of a mesosystem risk factor is presented. The suicide rate among Native American youth is ten times higher than that of white youth. Despite the considerable variation among tribal cultures, hopelessness (an organism level factor) and overall economic and social conditions on reservations (exosystem and macrosystem factors), are commonly noted reasons for suicidal behaviors among Native American youth. Another possible explanation can be found by examining the mesosystem of these youth. For Native American adolescents, stress can result from the transitions between life on reservations, in boarding schools, and on the outside, and from the divergent expectations in these different environments.

Exosystem factors indirectly increase the risk for adolescent suicide. One illustration of the indirect influence of exosystems on youth in the United States involves the positive correlation between media coverage of completed adolescent suicides, and an increase in adolescent suicides and attempts. Other examples of risk factors in the exosystem include parental employment requiring that a family move to a different community, or decisions by local school boards, local or state politicians, and the mass media.

An early examination of macrosystem level factors related to suicide was provided by Durkheim's study of social integration and regulation. Although he addressed overall suicide rates rather than adolescent suicide, the results supported the view that societal conditions are related to suicidal behavior. During the 1960s and 1970s, adolescent suicide rates in Japan decreased at the same time that increases were noted in the United States and Canada. A possible explanation for the decrease in completed suicides in Japan during this time, however, was the improvement in Japanese medical services, which may have led to the resuscitation of a greater portion of suicide attempters.

Prevention and Intervention in the Human Ecological System

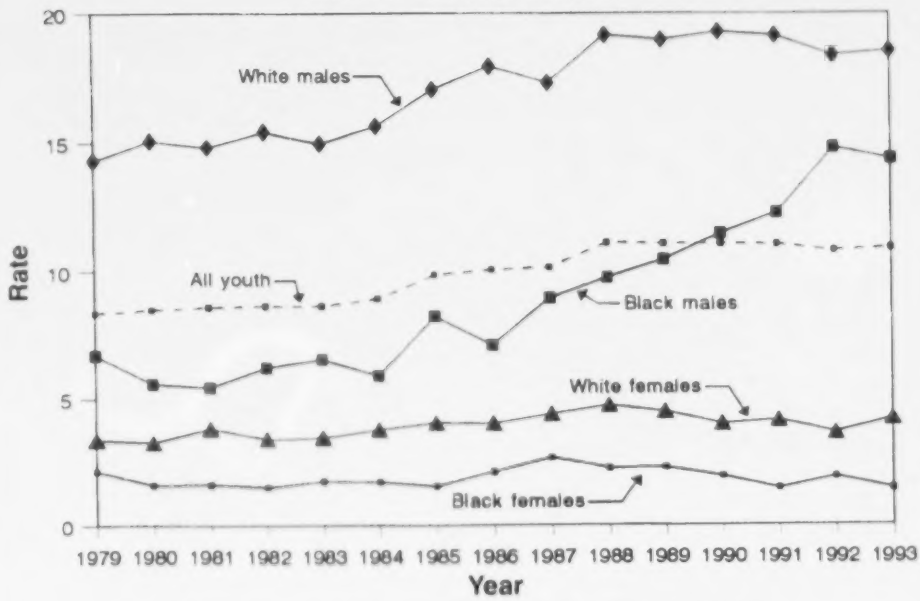
The human ecological approach to examining adolescent suicide holds potential for intervention and prevention at each level. Expanding the focus of prevention and intervention to encompass the multiple levels of the ecosystem proyides greater opportunities to reduce the risk for suicidal behavior among adolescents. At the organism level, behavioral cues can help family members and professionals recognize the potential for adolescent suicide. The American Academy of Child Psychiatry recommends professional help when adolescents display the following risk factors: changes in eating and sleeping habits; withdrawal from friends, family, and regular activities; violent or rebellious behavior; running away; drug or alcohol abuse; unusual neglect of personal appearance; radical change in personality; persistent boredom, difficulty in concentrating, a decline in the quality of school-work; frequent complaints about physical symptoms related to emotions, such as stomach aches, headaches, or fatigue; loss of interest in previously pleasurable activities; and an inability to tolerate praise or rewards.

Family members, teachers, and others who comprise the microsystems of adolescents can make referrals for therapy when youth indicate that they have suicidal intentions. These include general statements or specific plans about how to kill themselves, expressing feelings that others would be better off without them, and by giving away prized possessions. Intervention after a suicide attempt can be designed to focus on improving the coping and personal resources of adolescents. Family therapy can help suicidal adolescents and parents and siblings to develop improved interactional patterns for dealing with stress. Youth who are socially isolated may need help in integrating into peer and other interpersonal microsystems.

Prevention and intervention measures can be taken through several microsystems. Many professionals recommend treatment for family systems in cases of attempted or completed suicide. When a family loses an adolescent to suicide, therapy can help the members work through their grief and reorganize family inter-

action patterns. Schools serve as a microsystem commonly used for establishing prevention programs. Some programs are designed to directly teach adolescents about suicide, encouraging them to explore their feelings on the subject. There is some controversy regarding the extent to which teaching about suicide may increase the risk of suicidal behaviors, but empirical evidence is lacking. Other programs use indirect prevention approaches, such as increasing communication skills, assertiveness, and coping techniques. Many school systems have programs designed to help other students and the community deal with the crisis of a completed suicide in order to reduce the possibility of subsequent suicides.

Suicide Rates (per 100,000) among 15- to 19-Year-Olds in the United States



Data from the Center for Disease Control. Web page: http://www.cdc.gov/ncipc

Medical personnel are frequently the first microsystem to work with adolescents whose suicide attempt requires emergency-room attention. These professionals often make determinations as to whether the adolescent should remain hospitalized for further psychological evaluation, or can return directly to the family. Hawton proposed that after the necessary medical care is provided, the following issues should be addressed: a) the events that preceded the attempt, b) the extent of suicidal intent and reasons for the act, c) current stresses, d) current or previous psychiatric disorders or suicidal tendencies, e) family and personal history, f) coping resources and supports, g) the risk of further attempts, and h) attitudes of the individual and family members toward intervention. When using a human ecological approach, an additional assessment issue would be to identify the suicidal adolescent's microsystems and to investigate the relationships among them (i.e., the mesosystem).

> Some mental health professionals suggest that after a completed suicide, the entire community is in need of intervention.

When an adolescent enters a medical setting for treatment after a suicide attempt, reentry into other parts of the mesosystem can be challenging. Members of other microsystems may feel uncomfortable and unsure as to how they should respond to the suicidal adolescent. In addition, families and medical microsystems may have to relate to each other more closely. Further, some mental health professionals suggest that after a completed suicide, the entire community is in need of intervention. Peer and religious groups, schoolmates, and others who serve as microsystems for youth (i.e., the total mesosystem) may need support and education at the mesosystem level.

While direct intervention most commonly occurs at the organism, microsystem, and mesosystem levels, prevention and indirect intervention opportunities are available at the exosystem and macrosystem levels. Funding for adolescent suicide prevention or intervention programs generally emanates from the exosystem. A state department of education or local school board, for example, may mandate the development of educational programs on suicide prevention. Further, policies in the workplace which permit personal leave can allow parents to provide timely support for suicidal youth.

The primary macrosystem level interventions involve public policies that indirectly relate to the potential for suicidal behaviors among adolescents. For example, policies which provide support for adolescent parents or gifted youth may reduce suicide rates, because both of these groups have been identified as being at risk. Because the family microsystem holds numerous risks, prevention approaches emerging from public policy can emphasize

family strengths and support systems.

Conclusion

The human ecological approach to suicidal adolescents integrates previous research and theory into the multiple ecosystemic levels (organism, microsystem, mesosystem, exosystem, and macrosystem). In addition, this approach can be used to identify risk factors related to adolescent suicide, as well as intervention and prevention at each ecosystem level. The human ecological model holds considerable potential for providing a framework for practitioners and in developing public policy.

Carolyn S. Henry, Ph.D. is Interim Head and Associate Professor in the Department of Family Relations and Child Development at Oklahoma State University. Dr. Henry received her Ph.D. at the University of Tennessee and is a marriage and family therapist. She currently teaches courses in family relations. Her research and publications focus upon the relation of family factors to adolescent stress and adaptation. This article has been adapted, with permission, from:
Henry, C. S., Stephenson, A. L., Hanson, M. F., & Hargett, W. (1993). Adolescent suicide and families: An ecological approach. Adolescence, 28, *291-308.*

Suicide Attempts and Stressful Life Events

By Dalia Adams, M.A., James Overholser, Ph.D. & Anthony Spirito, Ph.D.

Stressful life events often occur before a person attempts or commits suicide. Individuals who have attempted suicide report experiencing more stressful events than depressed persons or persons in the general population. The stressful events that suicide attempters report are often outside of the person's control. As a result, the stressful events that precede suicidal acts cannot be dismissed as merely life difficulties that result from psychological problems such as depression. Stressful events that increase suicide risk can occur to anyone. The more that is understood about the relationship between stressful events and suicide, the better we may be able to design effective suicide prevention programs.

Individuals who have attempted suicide report experiencing more stressful events than depressed persons or persons in the general population

Certain types of stressors may play an especially powerful role in suicide. For example, exit events (such as death, divorce, or separation that involve an interpersonal loss) have been strongly linked to a risk for suicidal behavior. Other major negative events, such as the loss of a job, are also often reported as preceding a suicide attempt. It may be that a recent loss can reactivate unresolved feelings from an earlier loss, increasing the impact of the current loss. As a result, a person may feel overwhelmed and ultimately depressed, hopeless, and suicidal.

Stressful life events do not need to be major life-changing events in order to contribute to suicide risk. Situations of prolonged stress, including ongoing financial problems, family conflict, or chronic physical illness, may also increase the risk of suicides. Studies have shown that arguments with close relatives often precede suicide attempts. A single argument may contribute to feelings of despair if it is experienced as part of a larger pattern of hostility that holds little promise of resolution. Thus, both major life-changing events and chronic stressors can lead to suicidal behavior.

Completed and attempted suicides have become increasingly serious problems among adolescents. Despite the rise in adolescent suicidal behavior, there have been only a few research studies examining the role of life stress in adolescent suicidal behavior. The existing research has shown that adolescents, like adults, are at greater risk for suicidal behavior when they experience high levels of stress. Adolescence is a stressful time. As children develop, the frequency of stressors increases into adolescence, but this increase in stressful events is greater for suicidal young people. However, not all stress experienced during adolescence is related to suicide risk. As a result, it would be useful to identify the types of stressors that are related to suicide risk and use those stressors as markers to identify adolescents who are potentially at risk.

Studies that have followed adolescents over time have shown that chronic stressors may have a greater impact on adolescent mental health than do the major life-changing events. It is possible that chronic stressors (e.g., conflicted relationships with parents) may also have a greater impact on adolescent suicide risk than do major negative events. There is some research support for the importance of chronic stressors or strains in creating a risk for suicide among adolescents. Studies have shown that problems and

arguments with parents are among the most common precipitant of attempted and completed suicide by adolescents. Alternatively, a major negative event can have a prolonged effect by creating a life change that results in ongoing stressful situations. A loss of a parent through death or divorce can result in ongoing financial and familial problems. As a result, both acute and chronic stressors need to be examined in research on adolescent suicide.

Research Summary

We conducted a study on stressful life events in adolescent suicide attempters. This study was published in the *Canadian Journal of Psychiatry* (1994, 39, 43-48), and is summarized here. Our research study was designed to examine the relationship between various types of stressors and adolescent suicide attempts. Suicidal and nonsuicidal adolescents were compared for frequency of reported chronic strains, discrete negative events, and stressors associated with parents, friends, school, dating and family problems. The extent to which each type of stress was related to depression, hopelessness and suicidal ideation in the suicide attempters was also examined.

Subjects and Methods

Ninety-one suicidal adolescents participated in the study. All of these adolescents had been admitted to the psychiatric unit of a large, urban medical center following a suicide attempt. One hundred fifty-five nonsuicidal community adolescents also participated in the study as a comparison group. The adolescents ranged in age from 12 to 17 years. The average age of the adolescents in the two groups was equivalent, but the groups differed in the percentages of boys and girls. Among the hospitalized suicidal adolescents, there was a disproportionately high percentage (80%) of girls. In the comparison group roughly half of the adolescents were girls.

> Stressful life events do not need to be major life-changing events in order to contribute to suicide risk.

The suicidal adolescents who participated in the study had all made suicide attempts severe enough to warrant hospital admission for further medical care following an initial emergency room evaluation. While they were still hospitalized, the suicidal adolescents were assessed for the types and levels of stress they had experienced in the previous month. The nonsuicidal adolescents in the comparison group were recruited from local public and private high schools. The nonsuicidal high school students were also assessed for the types and levels of stress they had experienced in the previous month, and the assessments took place during regular school hours. The hospitalized adolescents who had attempted suicide were assessed further for levels of depression, hopelessness and suicidal ideation.

In order to assess the levels and types of stress experienced by the adolescents, we developed an Adolescent Life Event Survey questionnaire. It was adapted from two other well-established stress questionnaires: the Social Readjustment Scale for Children and the Life Experiences Survey. The Adolescent Life Events Survey lists a total of 65 events, and the adolescents were asked to indicate which of these events had occurred to them in the previous month. However, only negative life events were included in the statistical analyses because only the negative events are likely to be related to suicide attempts. As recommended by previous research, events that could be the result of depression (e.g., abused alcohol or drugs) were excluded from the statistical analyses.

The stressful events reported by the adolescents were categorized using two different approaches. Using the first approach (Type of Stress), events were categorized and coded according to the chronology of the stress. Two types of acute stressors were identified: (1) *Exit Events* (death of a loved one, having moved to a new neighborhood) and (2) *Major Life Events* (getting in trouble with the law, a parent recently got remarried). These acute stressors were distinguished from (3) *Chronic Strains* (ongoing financial problems in the family, parental alcohol abuse). Thus, three types of stressors were identified based on the chronicity of the stressor.

The second approach (Source of Stress), used the stressful events reported by the adolescent. These were categorized according to the source of the stress. They were: (1) *Family Stress* (emotional problems in a family member, a sibling recently moved out of the home); (2) *Parent Stress* (parental divorce, parental alcohol abuse); (3) *Friend Stress* (feeling pressured by peers, emotional problems in a friend); (4) *Dating Stress* (breaking up with a boyfriend or girlfriend, having concerns about sexual behavior); and (5) *School Stress* (getting into trouble at school, receiving poor grades).

The two methods of categorizing stressful events were not mutually exclusive. As a result, a specific stressful event could be categorized with each approach. For example, "a sibling recently moved out" would be categorized as an Exit Event using the first approach and as Family Stress using the second approach. Because of the overlap in the two approaches to categorizing the stressors, statistical analyses were conducted separately for the Type of Stress and Source of Stress categories. The level of stress in each category was determined by the sum of reported stressful events.

To assess levels of depression, hopelessness and suicidal ideation among the hospitalized adolescents, well-established measures or questionnaires were used. Each of the measures had been tested in previous research studies and had been shown to have both validity and reliability. The

Reynold's Adolescent Depression Scale, a 30-item questionnaire, was used to quantify depression severity. Hopelessness and negative expectations were assessed using the Hopelessness Scale for Children, a 17-item true/false scale. The Suicide Ideation Questionnaire, a 30-item self-report measure, was used to assess the frequency of suicidal thoughts.

The data were analyzed in several stages. First, the two groups of adolescents, (1) suicide attempters and (2) high school students, were compared for the total number of stressors reported. The two adolescent groups were then compared for level of stress reported according to the "Type of Stress" and "Source of Stress" categories that had been defined. In order to take into account potential differences between boys and girls, the above analyses were then essentially repeated with gender taken into consideration. Finally, statistical analyses were conducted to examine the relationships among the defined categories of stress and levels of depression, hopelessness and suicidal ideation reported by the adolescent suicide attempters. The results are summarized below.

Attempted Suicide

No national data is kept on attempted suicide. However, the National Institute on Mental Health reports the following facts:

- There is an estimated 8 to 25 attempted suicides to one completion.
- More women than men report a history of attempted suicide, with a gender ratio of 2:1.
- The strongest risk factors for attempted suicide in youth are depression, alcohol or other drug use disorder, and aggressive or disruptive behaviors.
- The strongest risk factors for attempted suicide in adults are depression, alcohol abuse, cocaine use, and separation or divorce.

Results

The adolescent suicide attempters were compared to the high school students for the total number of stressors they had experienced during the previous twelve months. As was expected, the suicide attempters reported a significantly greater number of stressors during the previous year than did the high school students.

Suicidal versus nonsuicidal adolescents were compared for the level of stress reported in each Type of Stress (Major Life Events, Exit Events, Chronic Strains). Suicide attempters reported more stressful events in all three categories.

Suicidal and nonsuicidal adolescents were compared for the level of stress reported in the different Source of Stress domains (Family Stress, Parent Stress, Friend Stress, Dating Stress, School Stress). The hospitalized suicide attempters reported more stressors in the categories of Parent Stress and Friend Stress than did the nonsuicidal high school students. The frequency of stressful events reported in the categories of School Stress, Dating Stress and Family Stress did not differ between the suicidal and nonsuicidal adolescents.

There was a higher proportion of females in the suicidal group, so the potential impact of gender was examined. Girls reported a significantly greater number of stressors than did the boys. Gender differences in the number of reported events within each Type of Stress category (Exit Events, Major Life Events, Chronic Strains) were also examined. Girls reported more stressors in the categories of Exit Events and Chronic Strains than did boys. Compared to the high school students, the suicide attempters reported more Major Life Events and more Exit Events, but not more Chronic Strains when the analyses included the effect of gender.

Elevated levels of stress are related to suicide attempts among adolescents.

A second set of analyses examined gender differences in number of reported stressors within each Source of Stress category (Family Stress, Parent Stress, Friend Stress, Dating Stress, School Stress). Girls reported more stressors in the categories of Family Stress, Parent Stress, Friend Stress and Dating Stress than did boys. Girls and boys did not differ in the number of reported stressors in the category of School Stress. With gender included in the analyses, the attempted suicide group did not differ from the high school group in the number of reported stressors in the Source of Stress categories.

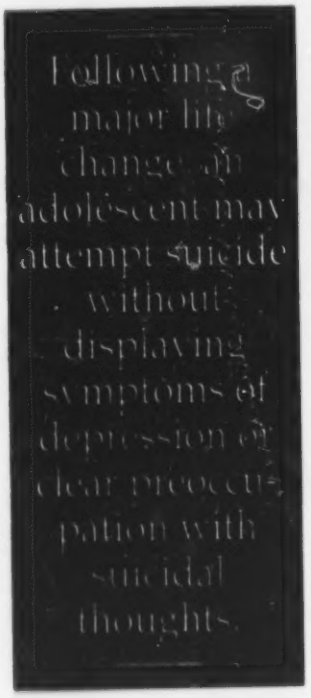
However, boys who had attempted suicide reported more stressors than nonsuicidal high school boys. Suicidal and nonsuicidal girls did not differ in the number of stressors reported.

In order to get a more complete understanding of how stressful life events are related to adolescent suicide attempts, the relationship between the stressors reported by the suicide attempters and levels of depression, hopelessness and suicidal ideation was examined. These analyses were computed separately for boys and girls.

Among boys, no significant relationships were found between level of stress in any category and depression, hopelessness or suicidal ideation. However, significant findings in statistical analyses can be dependent on having a sufficient number of subjects. Because only 20% of the suicidal adolescents were boys, there may have been too few boys for the statistical results to be significant. Among girls the total number of stressful events was related to depression and to suicidal ideation. Depression and suicidal ideation in girls were also related to a number of categories of stressors. In a final set of analyses, controlling for the effect of gender, Chronic Strains and Parent Stress were found to be the most strongly related to adolescent depression and suicidal ideation.

Summary and Discussion

The most important findings of our study can be summarized as follows. First, elevated levels of stress are related to suicide attempts among adolescents. Also, certain categories of stress are more closely linked than other categories to adolescent suicide attempts. Finally, gender has an impact on the relationship between stress and adolescent suicidal behavior. In other words, the relationship between stressful life events and suicidal behavior differs somewhat between boys and girls.


Following a major life change, an adolescent may attempt suicide without displaying symptoms of depression or clear preoccupation with suicidal thoughts.

The results of our study confirm that increased stress is more common among adolescent suicide attempters than among nonsuicidal adolescents. In this way, adolescents are similar to adults for whom increased stress is a suicide risk factor. Compared to nonsuicidal high school students, adolescent suicide attempters reported elevated levels of stress in the categories of Chronic Strains, Exit Events and Major Life Events. Furthermore, stressors in the categories Parent Stress and Friend Stress distinguished adolescent suicide attempters from the nonsuicidal comparison group. However, when more stringent analyses that took gender into consideration were done, only Exit Events and Major Life Events distinguished suicide attempters from nonsuicidal adolescents.

Elevated levels of stress were related to depression and suicidal ideation. Chronic Strains and Parent Stress were the categories of stress that were the most strongly related to depression and suicidal ideation. Thus, acute stressors involving major life changes were related to an increased risk of suicide attempts, while chronic stressors and stress originating with parents (e.g., parent-child conflict) were related to depression and thoughts of suicide.

Many of the group differences and relationships observed in the study were true only for girls once the statistical analyses took gender into account. This seems to indicate that the relationship between stress and suicide attempts is different in boys and girls. Because there was a relatively small number of suicidal boys in our study, further research is needed to clarify the gender differences we observed. Also, further research is needed to more fully explain the role of both chronic and acute stressors in adolescent suicide risk.

Implications for Suicide Prevention and Intervention

Stressors including problems with family, friends, and school occur throughout adolescence. However, our study indicated that adolescents experiencing elevated levels of stress are at risk for suicide attempts. They are also at increased risk for depression and suicidal ideation which may ultimately lead to more serious suicidal behavior. Adolescents who have experienced major interpersonal losses or have experienced other major life changing events may be in particular need of early intervention. Following a major life change, an adolescent may attempt suicide without necessarily displaying symptoms of depression or clear preoccupation with suicidal thoughts. Thus, a preliminary cry for help may not be evident.

Adolescents experiencing more chronic forms of stress are more likely to become depressed or preoccupied with suicidal thoughts. Interventions with these adolescents should include an assessment of recent stressors, as well as an assessment of suicide risk. The parent-adolescent relationship should be carefully considered in any assesment of adolescent stress. Professionals working with adolescents should be aware of the increased risk associated with ongoing problems and conflicts. Prevention and intervention programs may need to incorporate conflict resolution, problem-solving abilities and stress-management skills.

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School-based Suicide Prevention And Intervention Programs

By Patrick B. Malley, Francis Kush & Roxanne J. Bogo

Suicide among adolescents has increased dramatically. In fact, it is reported that the number of adolescent suicides has increased 300% during the past 30 years. In 1995, suicide was the third leading cause of death among the 15-to-24 year-old age group; and the fourth leading cause of death for the 5-to-14 year-olds. In the same year, 5,350 15-to-24 year-olds killed themselves. In the past, suicide was generally regarded as unacceptable by youth. Now, this perspective is weakening, and it is likely to become more pronounced in the future.

As alarming as these statistics are, actual cases of adolescent suicide are considered to be underreported due to the tendency to disguise them as accidents. In 1985, Ross stated that she believed suicides to be underreported by about 4 to 1.

Many experts view schools as a primary location to implement various suicide prevention programs that include activities to educate, identify, and intervene with potentially at-risk young people. Schools and school officials offer an enormous amount of consistent, direct contact time with large populations of adolescents. Because schools are found in almost every community, they are seen as potentially strategic and possibly effective suicide prevention resources.

Misconceptions About Suicide

There are many prevalent misconceptions about suicide:

1. ***People who discuss suicide will not commit the act.*** The fact is that up to three-quarters of those who take their lives have communicated beforehand, perhaps as a cry for help, perhaps to taunt.

2. ***Suicide is committed without warning.*** The falseness of this belief is readily indicated by the preceding statement. The person usually gives many warnings, such as saying that the world would be better off without him or her or making unexpected and inexplicable gifts to others, often of his or her most valued possessions.

3. ***Only people of a certain class commit suicide.*** Suicide is neither the curse of the poor nor the disease of the rich. People in all classes commit suicide.

4. ***The motives for suicide are easily established.*** The truth is that we do not fully understand why people commit suicide. For example, the fact that a severe reverse in finances precedes a suicide does not mean that the reversal adequately explains the suicide.

5. ***All who commit suicide are depressed.*** This fallacy may account for the fact that signs of impending suicide are overlooked because the person does not act despondently. Many of the people who take their lives are not depressed. In fact some people appear calm and at peace with themselves.

6. ***To commit suicide is crazy.*** Although most suicidal persons are very unhappy, most do appear to be completely rational and in touch with reality.

7. ***A tendency to commit suicide is inherited.*** Since suicides often run in families, the assumption is made that the tendency to think in terms of self-annihilation is inherited. There is no evidence for this.

8. ***Improvement in emotional state means lessened risk of suicide.*** The fact is that people often commit the act after their spirits begin to rise and their energy level improves; this appears to be especially true of depressed patients.

9. ***Suicidal people clearly want to die.*** Most people who commit suicide appear to be ambivalent about their own deaths. Others are suffering from depression or alcoholism, which, if alleviated, reduces the suicidal desire. For many people the suicidal crisis passes, and they are grateful for having been prevented from self-destruction.

10. ***Thinking about suicide is rare.*** Estimates from various studies suggest that, among nonclinical populations, suicidal ideation runs from 40 percent to as high as 80 percent; that is, these percentages of people have thought about committing suicide at least once in their lives.

11. ***Asking a person, especially a depressed one, about suicide will push him or her over the edge and cause a suicidal act that would not otherwise have occurred.*** One of the first things clinicians learn in their training is to inquire about suicide in a deeply troubled patient; to ask about it can give permission to talk about what the person might harbor as a terrible, shameful secret, which could lead to further isolation and depression.

12. ***People who attempt suicide by a low-lethal means are not serious about killing themselves.*** This confuses lethality with intent. Some people, for example, are not well-informed about pill dosages or human anatomy. What turns out to be an attempt unlikely to cause death may nonetheless have been engaged in by someone who really wanted to self-destruct.

Compiled by H. Elaine Rodney, Ph.D. and Laxley W. Rodney, Ph.D. from the work of W. J. Fremouw, W. J. Perczel and T. E. Ellis; A. D. Pokorny; and E. S. Shneidman.

Many schools have responded to the concern about adolescent suicide by developing and adopting various programs. However, information on detailed content and the effectiveness of such programs are seldom reported in professional journals and reports. In fact, few reference sources are available on the many already developed comprehensive and systematic school-based adolescent suicide prevention and intervention programs in the United States. A report by the Office of the Inspector General has documented general statewide suicide prevention efforts, and the American Association of Suicidology has begun to evaluate and study model suicide prevention programs across the nation. Although empirically based information about adolescent suicide is slowly accumulating, more information about the efficacy and content of specific programs is greatly needed.

Components

The literature suggests that in order to be effective, school-based suicide prevention and intervention programs must be comprehensive and systematic. Comprehensive and systematic school-based suicide prevention and intervention programs are those that address preventing suicides from a point before a potential suicide, during suicidal crisis, and following a completed suicide. Comprehensive and systematic programs also seek to be an ongoing, intact, and continuously updated part of a school's student services. This position is shared by many authors who have developed models of school-based programs. A review of recent literature reveals the following components are most often recommended for inclusion in comprehensive and systematic school-based adolescent suicide prevention and intervention programs.

> Schools have both ethical and legal mandates to ensure the health and safety of school children.

- Written formal suicide policy statement.
- Written procedures to address at-risk students.
- Staff in-service training and orientation to the program.
- Mental-health professional(s) onsite.
- Mental health team.
- Prevention materials for distribution to parents.
- Prevention materials for distribution to students.
- Psychological screening programs to identify at-risk students.
- Prevention-focused classroom discussions.
- Mental health counseling for at-risk students.
- Suicide reference materials for counselors.
- Suicide prevention and intervention training for school counselors.
- Faculty training in detection of suicide warning signs.
- Postintervention component in the event of an actual suicide.
- Written statement that describes specific written criteria for counselors to assess the lethality of a potential suicide.
- Written policy that describes how the school-based adolescent suicide prevention and intervention program is evaluated.

Research Summary

This paper describes a study of randomly selected secondary school counselors to determine to what extent, if any, their districts have responded to the adolescent suicide crisis regarding these components. More specifically, the counselors were asked to identify the foregoing components as being (or not being) functional in their schools. An ancillary purpose of this study was to determine the relationship between the existence of a written formal policy statement in the school and the implementation of each specific suicide prevention component.

Procedure and Participants

A survey was sent to a nationwide random sample of 1,000 secondary school counselors who were currently members of the American School Counselors Association (ASCA). Of the original 1,000 surveys, 325 (32.5%) were used in the study. Each of the 16 components (identified in the list) were given as questions in the survey. Participants were asked to respond to the presence or absence of each component in their school by answering yes, no, or do not know to the questions.

Of the respondents who were used in the survey, 43% had 0-5 years experience as a school counselor; 22% had 6-10 years; 15% had 11-15 years, 14% had 16-20 years; 6% had 21-30 years, and 6% did not respond to this category. Also, 67% had a master's degree plus additional credits, 24% had a master's degree, 4% had a doctoral degree, 3% had a bachelor's degree, and 2% had post-doctoral training.

Results

Responses to the survey revealed that three components were present in over 65% of the schools: "Mental health counseling for at-risk students," "Mental health team," and "Mental health professional on site."

Nine components were present less than 65%, but more than 40% of the time. They were: "Written formal suicide policy statement," "Written procedures to address at-risk students," "Staff in-service training and orientation to the program," "Prevention materials for distribution to students," "Prevention-focused classroom discussion," "Suicide reference materials for counselors," "Suicide prevention and intervention training for school counselors," "Faculty training in detection of suicide warning signs," and "Postintervention component to be used in the event of an actual suicide."

Four components were used by the schools less than 40% of the time: "Prevention materials for distribution to parents," "Psychological screening programs to identify at-risk student," "Written statement that describes specific criteria for counselors to assess the

lethality of a potential suicide," and "Written policy that describes how the school-based adolescent prevention and intervention program is evaluated." All of the components are found more often in the school when a written formal suicide policy is used, with the exception of "Psychological screening programs to identify at-risk students," and "Mental health counseling for at-risk students."

Schools that employ a written policy are considerably more comprehensive and systematic in their approach to intervention and prevention programs.

Discussion

The majority of schools responding to this survey included some form of mental health counseling for students at risk (87% have "Mental health counseling for at-risk students"). However, about one half of the schools do not employ the other components that are necessary to ensure that the program is systematic and comprehensive. One may argue that the absence of such components limits the effectiveness of these school programs. Nonetheless, schools have both ethical and legal mandates to ensure the health and safety of school children.

In this study, 51% provide "Suicide reference materials for school counselors," 35% have a "Written statement that describes specific criteria for counselors to assess the lethality of a potential suicides," and only 47% provide "Faculty training in detection of suicide warning signs." The absence of components like these should pose ominous signs for counselors and schools regarding the legal implications of counseling practice. For instance, legal problems have arisen when a school has not reported a student's suicidal threats to his/her parents. It is also particularly disheartening to see that, although most teen suicides occur in the home, only 28% of the schools use "Prevention materials for distribution to parents," even though this component could be included with minimum economic hardship to the school system.

The results of this survey indicate strongly that schools that employ a written policy are considerably more comprehensive and systematic in their approach to intervention and prevention programs. With the exception of two components ("Mental health counseling for at-risk students" and "Psychological screening programs to identify at-risk students"), the presence of the other components is significantly enhanced when a written formal suicide policy is authorized by the school. Mental health counseling was already found in a significant number of the schools. It seems obvious that psychological screening in schools is fraught with a myriad of ethical and legal issues, and school systems are often probably not prepared to grapple with them at this time.

Recommendations For School Counselors

Counselors should review available literature regarding the importance and necessity of including comprehensive and systematic suicide prevention and intervention programs in the schools. They should apprise teachers and administrators at school meetings of the ethical, moral, and legal implications of these programs. School personnel should be made aware of the fact that at least one court has ruled that school counselors have a legal duty to protect school children, if the counselor foresees or should have foreseen that students were potentially dangerous to themselves. If a school system does not have a written formal suicide policy, the board and community should be petitioned to enact one. Systematic and comprehensive suicide prevention and intervention programs may save lives and protect counselors and the school from liability.

School counselors must also realize that certification or licensure in counseling does not necessarily qualify them to practice counseling in all areas. Professional organizations and the law are more often requiring counselors to have the appropriate credentials and training to perform certain counseling functions and activities regardless of their professional stature. It is imperative, therefore, that school counselors attend workshops, classes, and training sessions that stress knowledge and the acquisition of clinical skills pertinent to at-risk students.

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As an ongoing feature for the benefit of our readers, *The Prevention Researcher* will run an occasional column on networking.

AIDS EDUCATION AND PREVENTION is a bimonthly journal that stresses the positive impact of increasing the knowledge of HIV/AIDS and prevention options. Risk-reduction through education, with particular attention paid to the design/suitability of various programs, is thoroughly examined. The journal addresses the salient points of AIDS awareness in our society—studying population habits on an international, national, and local level. Varying environments are touched upon (schools, streets), all ages (prenatal, adolescents, adults, elderly), all persuasions (heterosexual, homosexual, bisexual), all levels of society (underprivileged, professional) — to show that we are all touched by AIDS, there are specific ways of preventing the spread of the disease, and all sectors can be targeted with interventions.

The journal covers innovative strategies that are well-grounded in public health principles and assesses their effectiveness regarding behavior modification. As an interdisciplinary journal, empirical evidence is presented to support the studies; however, the tone of the journal is not strictly methodological—the humane aspects of a situation emerge as well.

The journal never shirks from hard to target populations (ie, the homeless) or complex issues (ie, how people disclose their HIV-positive status to others). The journal recognizes the need for supportive relationships, continued health care, and continued employment for those infected with AIDS. The mental and social consequences involved in controversial issues are examined to extract methods of facilitating appropriate behavior change and prompting early intervention.

In sum, the journal supports critical thinking, decision making, and problem resolution in reference to AIDS education and prevention. Always addressing the major concerns—health insurance, stigmatization, supportive networks, preventative measures, implementation of effective education campaigns—in an effort to promote tolerance and understanding.

For more information call Guilford Press at 1-800-365-7006. For sample copies e-mail samples@guilford.com.

The goal of ***NATIONAL FAMILIES IN ACTION*** is to help parents prevent drug abuse at home and in their community. Founded in 1977, it is one of the leaders of the national prevention effort that, between 1979 and 1992, cut drug use in half among Americans of all ages and by two-thirds among adolescents and young adults throughout the United States.

Club HERO (Helping Everyone Reach Out), is an NFIA after-school program for 6th grade students, funded by the Center for Substance Abuse Prevention. It rewards student's achievements with visible motivation. Students earn points for a variety of achievements and behaviors both at school and at home. Points are accumulated in stamp books which students use to "buy" gifts and prizes.

Students are also introduced to real-life heroes from their community and the surrounding area—people who are representative of responsible, active citizens and families. Students try their hand at positively influencing their peers through a model conduct project. They work with their parents in an advocacy project to initiate positive change in the community. Their parents establish a network with other parents and agree on a core set of behavior standards for their children. Integral to the program is a drug education component.

During the summer, students attend Camp HERO where they have time to visit businesses, museums and cultural sites. The students also participate in a beautification project with a master gardener. A reading motivation program is an integral part of Camp HERO.

Preliminary results show an increase of at least one letter grade in at least one subject by 50 of 60 students. Parents and teachers report significant improvement in school bonding and behavior.

National Families in Action can be reached at 770-934-6364 or at http://www.emory.edu/NFIA/ on the World Wide Web.

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The PREVENTION RESEARCHER

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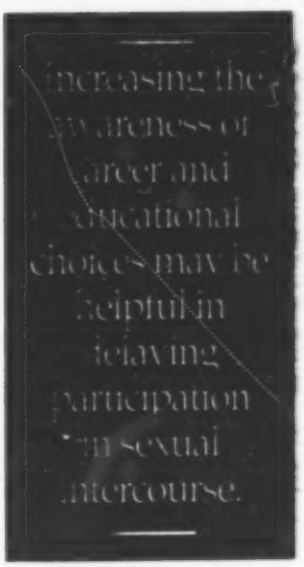
ADOLESCENT PREGNANCY: A PREVENTABLE CONSEQUENCE?

By Barbara P. Yawn, M.D., M.S., and Roy A. Yawn, M.D.

Each year in the United States, one in ten girls aged 15 to 19 years conceives. Slightly more than one third of these teens choose elective abortions, 13% miscarry and 56% deliver their children. Ninety-five percent (95%) of those who deliver choose to keep their child within its family of origin. Adolescent pregnancy is not new, but teen marriage and parenting are not consistent with many of today's expectations such as high school graduation and post-secondary education for both young men and women. Adolescent pregnancy is not unique to any race, ethnic group, or geographic area. However, African-American teens report themselves twice as likely to be sexually active as white teens, and birth rates are higher among African American teens. To understand the elements of effective prevention, it is helpful to review what is known about factors related to the initiation or delay of teen intercourse.

Social, Racial, Cultural and Economic Factors

The rate of sexual activity in unmarried teenagers is affected by socio-economic status, ethnic factors and strength of religious beliefs in the community. Poverty is the factor most strongly related to teen pregnancy. Where a teen lives is very important in determining the age and circumstances of initiation of intercourse. Isolated African-American communities have a higher proportion of teenagers who have engaged in sexual intercourse than well integrated, racially mixed communities.



African-American adolescents initiate intercourse at a younger age than whites irrespective of socio-economic status. Hispanic adolescents also are more likely to be sexually active than white teens, but they are also more likely to be married. Cultural factors and perceived career opportunities may influence the racial variations in onset of sexual activity. The career options listed by African-American women are fewer than those of white women at all socio-economic levels and may influence desire for earlier motherhood. Rural communities often have the fewest visible career options for all adolescents. Increasing the awareness of career and

FROM THE EDITOR'S P.C.

Dear Prevention Colleagues:

We welcome you to our winter issue of the Prevention Researcher Newsletter. As always, we are getting wonderful feedback from a broad spectrum of prevention professionals nationwide. This is very encouraging to us.

This issue focuses on The Prevention of Adolescent Pregnancy. Our guest contributors are Drs. Barbara & Roy Yawn of Olmsted Medical Center, Dr. Robin MacFarlane of Cornell Medical Center, Dr. Claire Brindis, Director of the Center for Reproductive Health Policy Research at the University of California, and Dr. Leticia Postrado, Ms. Faedra Weiss, and Dr. Heather Johnston Nicholson of Girls Incorporated. We feel that this issue presents a solid background of adolescent pregnancy prevention as well as intervention strategies implemented in communities around the country. By no means is this review complete, but the articles do offer some innovative approaches and helpful strategies.

Turning to another subject, our editorial team has grappled with the issue of keeping articles brief and not too technical. Until now, we have shied away from printing citations and bibliographic references. Many readers and members of our editorial team realize that citations are essential for those who want to study an issue in-depth. Therefore, we have decided to include reference material on our world wide web site for each article in all of our issues.

Starting in January, 1997, you will find a list of references for each article at our web site: http://www.integres.org/prevres/ If you don't find everything you are looking for, please feel free to call us at 541-683-9278 or e-mail us with a request.

Steven Ungerleider, Ph.D.
Psychologist/Editor

educational choices may be helpful in delaying participation in sexual intercourse. The presence of strong religious beliefs (not merely church attendance) has been shown to delay the age of initiation of sexual activity.

Parental Influence

Adolescents report that they are influenced by their parents' attitudes and behaviors although that perception is often inaccurate. Early sexual experience of the adolescent's mother is associated with an early age of first intercourse in the child, especially girls. Boys reporting communication with their mothers regarding sexual matters report a later onset of intercourse. This is not true for communication with fathers, which is associated with greater sexual activity. For girls, there was no relation of age of first intercourse with communication with mother or father. Later onset of intercourse is associated with higher levels of parental education and family income. Earlier onset is more common in non-intact families and families with female heads of household.

Perceived parental disapproval of early sexual intercourse and the physical presence of a supervising adult are associated with a lower rate of sexual activity. Adolescents with higher levels of external social control through attachment to parents are less likely to initiate early sexual intercourse.

Peers and Dating

Peers play a major role in the adolescent's choice to begin or to delay sexual intercourse. Several studies suggest that actual peer attitudes and actions determine an adolescent's actions less than the teens' perceptions of their peers' activities and beliefs. High school students who were asked to describe their peers' beliefs and sexual experience were incorrect almost half the time. They were able to predict the beliefs of casual acquaintances with almost the same accuracy as the beliefs of their best friends. Both adolescent girls and boys report initiating sexual intercourse in response to challenges or dares by peers. Commonly reported challenges by eighth grade peers include substance use, stealing, and performing sexual acts.

Not surprisingly, the age of first intercourse is related to age at the first date. Of children who began dating at or before age twelve, 91% were sexually active before the end of high school. Delaying dating to age 13 decreased the rate to 56%. However, 50% of males said that their first intercourse was outside a dating relationship. In one study, white adolescents reported a progression from dating to petting to intercourse, while black adolescents reported that intercourse often came before petting or even dating in a relationship.

Personality and Self-Esteem

One of the few longitudinal studies of adolescents presents a composite picture of the adolescent most likely to engage in early and frequent sexual activity. The sexually active teen: places a high value on independence; places a lower value on and has a lower expectation for academic achievement; is more tolerant of socially deviant behavior; is less religious; perceives less compatibility between parents and peers; receives less parental influence compared to the influence of peers; displays and receives more social approval for problem behaviors; and has lower measured academic ability and achievement. The sexually abstinent teen has a greater commitment to school studies and a greater involvement in structured community activities.

Self-esteem does not appear to be low in sexually active or pregnant adolescent girls. However, over 16% of girls reported they failed to use contraception because they were forced to have sex or their boyfriends didn't want to use contraception, a potential indicator of inadequate self-protection if not self-esteem. Teens with the highest self-esteem are more likely to use contraception if they are sexually active.

Risks/Benefits

Skills to assess the risks and benefits of sexual intercourse may influence teens' decisions about initiation of intercourse and use of contraception. At least one study has shown an association between the level of sexual activity and the perceived risk/benefit ratio of intercourse during adolescence. Cvetkovich and Grote report that black males express the least perception of risk and the greatest perception of benefit from intercourse compared to white males and to females of both races.

HIV infection and AIDS have had some influence on adolescents' risk avoidance. In inner city areas where 41% of teens say they know

someone with AIDS, almost half of African-American adolescent boys use condoms. The use of condoms is much lower in other regions and other ethnic groups. Following classes, teens can recite the behaviors associated with HIV transmission but do not believe they are at risk. For example, several teens reported that, although they previously had other sexual partners, they were currently monogamous and therefore not at risk of HIV or other STDs.

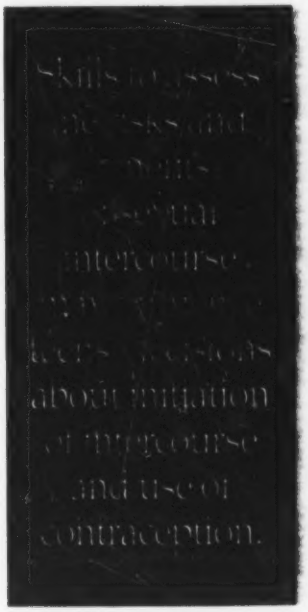
Contraceptive Knowledge

Adolescents begin sexual activity before they begin contraception use. Fifty percent of teen pregnancies occur within the first six months after initiation of sexual intercourse and another 20% occur within one year. At younger ages boys are more likely to use condoms, but girls delay prescription contraceptive use to a later age. African-American young women are twice as likely as their white counterparts to use prescription contraceptives, with the white adolescents reporting the use of coitus interruptus three times as often as African-American girls.

Delay in prescription contraceptives is associated with gaps in information. Forty percent of girls stated they believe hormonal contraception to be dangerous. Other reasons for delay include fear of parents finding out (30.5%), fear of the required pelvic exam (23%) and awaiting a closer relationship with the sexual partner (31.3%).

Media Exposure

No studies have shown that exposure to sexually explicit materials on television contributes to earlier or increased sexual intercourse. However, adolescents with the heaviest sexual experience reported watching the most television. This effect was strongest for boys who watched television apart from their parents and who stated that television was their primary source of sexual information. These teens were more likely to believe that premarital and extramarital intercourse with multiple partners was acceptable and were less likely to learn about contraception.



PREVENTION

Programs to deal with teen pregnancy continue to proliferate in schools, churches, girls' clubs, YMCAs, scouting troops, community health clinics and even entire communities. Many communities reach the largest number of children when programs are school-based with the cooperation of other interested groups. Programs are directed at delaying the onset of sexual activity, preventing pregnancy in sexually active teens, or both. While a few programs have proven effective, others do not appear to be effective and most have not been evaluated. A sample of programs which have been sufficiently evaluated to suggest at least some efficacy are described below.

Abstinence Programs

Abstinence is the goal of at least four programs reported in the literature. Aimed at prevention of sexual activity but using very different methods, each program is planning an evaluation.

Education of adolescents about self-discipline and responsibility in human sexuality is the goal of Postponing Sexual Involvement (PSI). This program includes sexuality education, peer and adult support, career opportunity information, and interpersonal skills training. PSI has shown that participants delay initiation of sexual intercourse for five months longer than non-participants. This program is now being used in several sites but no data on its efficacy in these populations has been collected.

Another project based in Bozeman, Montana hopes to improve parent-child communication to promote sexual abstinence. The program teaches parents skills to help their children develop better self-images and decision-making skills.

A mass media campaign in southern California was successful in increasing the number of reported parent-child conversations regarding sexual matters. The number of parents who stated that they had primary responsibility for their children's sex education also increased slightly. Television was found to be the most effective media resource. No data on the effect of increased parent-child communication on adolescent sexual behavior were collected.

A fourth demonstration project presented a value-based curriculum to parents and children through church, school and community programs. Source, Inc., has measured the information retention in a "Values and Choices" curriculum to be greater than 80% at three and six month follow up. No behavioral outcomes were assessed.

School Programs

School programs to provide sex education do increase students' knowledge. These courses do not result in earlier or increased frequency of intercourse. Most studies report increased contraceptive use among students receiving sexuality and contraception education in school, although some studies have found no effects.

Comprehensive school-based clinics provide all the basics of adolescent health care, including sexual health care. The oldest school-based clinic began in St. Paul, Minnesota in 1973. Students of the St. Paul schools where these clinics are located showed a decline in birth rates from 59 per thousand in 1976-77 to 26 per thousand in 1983-84, while national birth rates for both 1977 and 1982 were 45 per thousand adolescents. Whether this decline represents prevention of pregnancies or an increase in pregnancy terminations is unknown.

Some school programs use

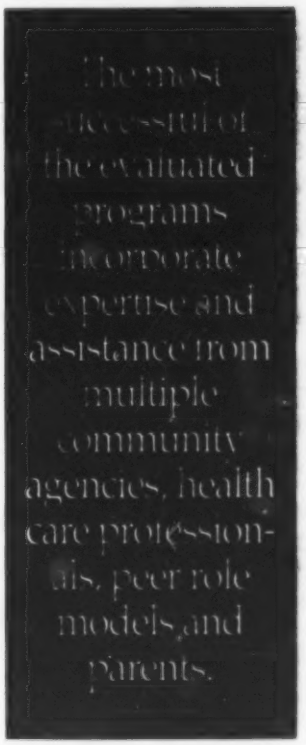
interactive computer programs. One program developed in New Orleans allows students to rehearse decision making skills while another program called "The Baby Game" explores alternatives and consequences of sexual activity. Both programs increase knowledge but neither has assessed behavioral outcomes.

Community Based Programs

An educational program has been developed and evaluated in a rural South Carolina community which includes evaluation of local problems; education of school, church, health professionals and lay adults in the community; and a coordinated school and church curriculum in kindergarten through twelfth grade. The program reports a 59% decline in pregnancy rates among 14-17 year olds after three years. Surrounding communities recorded a 25.3% increase during this same period.

In Baltimore, a cooperative effort of Johns Hopkins University and a junior high, a high school and a nearby free standing clinic is called the Self Center. Girls who participated in the full three years of classes and peer and adult support had a 30.1% decrease in pregnancy rates, while the rate in the surrounding control schools increased by 57.6%. A seven month delay in initiation of sexual intercourse (especially among junior high students) and increases in family planning clinic and contraceptive use were recorded. Younger students, particularly junior high boys, showed a substantial use of the center's services.

The University of Maryland also sponsored a Baltimore-based series of community education programs for African-American youth aged 9 to 15 years. The program was a series of eight 90 minute sessions on decision-making with emphasis on HIV risk. Each discussion group consisted of a group of friends recruited by an individual. The program resulted in an increase in all contraceptive use and condom use in particular. Rates of pregnancy or STDs were not measured.


The most successful of the evaluated programs incorporate expertise and assistance from multiple community agencies, health care professionals, peer role models, and parents.

Several other large urban hospitals have become involved in teen pregnancy prevention. Some hospitals provide special hospital-based adolescent health clinics, while others provide staff for school based health clinics. Most of these hospitals also provide educational support to junior and senior high schools.

Male Only Programs

Several rural counties of Virginia have developed programs to target rural black males, providing a series of ten 90-minute sessions for males between 12 and 18 who agreed to attend. The topics to be covered are group-selected and the discussions are facilitated by nursing, social work and medical students and staff from a rural Health Education Center. While evaluation of the program is only beginning, the increasing class sizes and the pre- to post-test knowledge scores suggest that this is a promising program aimed at the often ignored or forgotten at-risk male.

CONCLUSIONS

Many other teen pregnancy prevention programs have been developed, but few have been evaluated. The most successful of the evaluated programs incorporate expertise and assistance from multiple community agencies, health care professionals, peer role models and parents. The programs are resource-intensive and are not turn-key programs easily transferred to other communities. Energetic and knowledgeable facilitators and leaders are required to organize and to spearhead the project. The target population must be defined in terms of race, socio-economic status and other factors relevant to the initiation of sexual intercourse. Teen pregnancy and parenting does not bind itself to traditional single discipline medical, nursing or even public health department programs. Due to the racial, cultural, religious, economic and family issues that have an impact on this national problem, the solution will require creative and enduring attention.

Dr. Barbara Yawn is Director of Clinical Research for the Olmsted Medical Center in Minnesota. Her major research interests are in rural health care and women's health care. Before her two years as a Bush Fellow in research, Dr. Yawn had a full time practice in family medicine in a rural Minnesota community. During that time she developed a community based in-patient mental health unit and was involved in many community activities related to high risk obstetrical care, teen pregnancy and parenting, and child physical and sexual abuse.

Dr. Roy Yawn is Chief of Internal Medicine at the Olmsted Medical Center. In addition to his clinical responsibilities, Dr. Yawn serves as principal investigator in clinical studies. Although his primary clinical interests are in heart disease and geriatrics, Dr. Yawn's role as father and research collaborator with his wife have heightened his interest in adolescent health.

Summary of Adolescent Pregnancy Research: Implications for Prevention

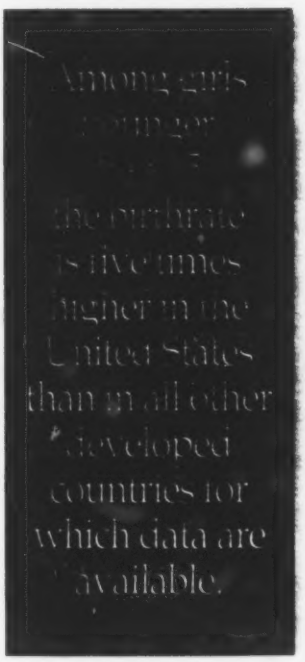
By Robin MacFarlane, Ph.D.

Pregnancy is an important part of womens' lives both physically and psychologically. Adolescents who become pregnant present their own set of physical, psychological, and sociological considerations. Although there is consensus that adolescent pregnancy involves great cost to society and some degree of risk to young women's well-being, there is widespread disagreement regarding the most appropriate way to manage this problem. Many attempts to prevent early pregnancy have been thwarted by political and religious groups that may be well-meaning but are often misinformed. Educators, family planning counselors, and other professionals dealing with adolescent health care must be familiar with research that will enable them to provide sound information and guidance to help adolescents make informed decisions.

The problems of adolescent pregnancy and childbearing are intimately related to the timing, sequence, and circumstances surrounding adolescents' decisions about sexual behavior, as well as society's ability to adapt to the needs of adolescents. This article will summarize some of the research findings about societal and psychological factors that influence adolescents' decisions to initiate sexual activity and to use contraception.

Sociocultural factors

Since 1970, adolescent birthrates have declined in the United States and in virtually all other industrialized countries. However, the rate of adolescent births remains highest in the U.S. Among girls younger than 15, the birthrate is five times higher in the United States than in all other developed countries for which data are available. Investigators from the Alan Guttmacher Institute sought to uncover the reasons underlying the differential birthrates of the United States and other countries. In a collaborative cross-cultural study, investigators compared the United States with Canada, England, France, The Netherlands; and Sweden across several variables thought to influence the rate of adolescent pregnancy, including racial heterogeneity, rate of abortion, incidence of sexual activity, general economic conditions, societal attitude toward sexuality, and contraceptive availability and use. The results give useful clues about the sociocultural determinants of adolescent pregnancy.



First, the United States is more racially heterogeneous than most other countries, and the rate of pregnancy in minority groups aged 15 to 19 (19%) is higher than the rate among white adolescents of the same age (9%). However, when American minorities were excluded from the sample, the adolescent birth rate in the United States was still higher than in every other country. Therefore, high adolescent pregnancy rates in the United States cannot be accounted for by racial heterogeneity alone.

Second, the proportion of pregnant American teenagers who had abortions in 1981 (about 45%) was similar to the proportion for countries other than the US (about 43%), indicating that abortion was not more common in other countries, and could not account for their lower birth rates.

Third, it was found that American teenagers did not initiate sexual activity at an earlier age than did foreign teenagers, and that American teenagers were no more sexually active than teenagers in other countries. Taken together, these data indicate that the higher incidence of births by adolescents in the United States may be partially accounted for by race, but cannot be accounted for by rates of abortion or sexual activity among American youth.

One difference between the United States and the comparison countries was the amount of poverty. The poverty in America is essentially unknown in Canada and in Western Europe. Therefore, the relatively high rate of poverty may be associated with perpetuating adolescent pregnancy.

The United States and comparison countries also differ in societal attitudes toward adolescent sexuality and contraception. The general American attitude is that sex among teenagers is not acceptable. In contrast, the European attitude is less condemning. For example, of the countries in the collaborative study, only the United States had developed government sponsored programs designed to discourage adolescents from becoming sexually active. Contraceptives, particularly oral contraceptives, were more available in foreign countries. In all countries studied except the United States, teenagers reported having easy access to family planning clinics. Furthermore, adolescents who were given contraceptives did not have to obtain parental consent, were assured of confidentiality, and often were not charged a

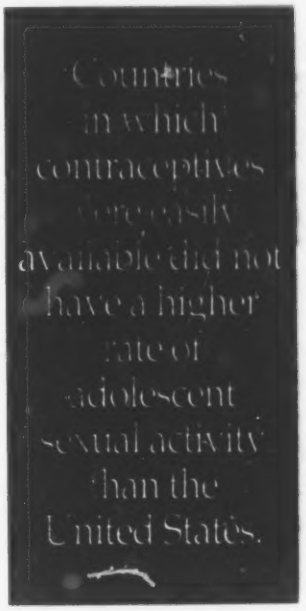
fee. It is noteworthy that countries in which contraceptives were easily available did not have a higher rate of adolescent sexual activity than the United States. Also, at least six other studies to date corroborate this finding that higher availability of contraceptives is not associated with higher rates of adolescent sexual activity.

Psychological Factors

Although sociocultural factors are important correlates of adolescent pregnancy, it is undeniable that many young women are exposed to similar sociocultural environments and do not become pregnant. Psychological and attitudinal factors are also implicated.

Studies suggest that pregnant adolescents differ from nonpregnant adolescents in lower educational motivation and a tendency to be more impulsive. Although these differences exist, they are not strong predictors of adolescent pregnancy. In fact, most studies comparing pregnant adolescents to nonpregnant peers find no psychological differences. It is likely that pregnant adolescents are too heterogeneous to show predictable differences when compared with nonpregnant adolescents. Therefore, it is useful to identify subgroups of pregnant adolescents that are relatively psychologically or attitudinally homogeneous. Identification of subgroups manifesting meaningful psychological homogeneity could have implications for targeted preventive interventions.

One of the more clinically relevant classifications compiles adolescents' stated and inferred reasons for becoming pregnant into three categories: intentional, accidental, and uninformed (or misinformed). This classification seems quite useful because counseling sexually active adolescents often involves discussing the underlying reasons for having sex, identifying the extent to which the adolescent is willing to use contraceptives and, in some cases, identifying reasons for wishing to become pregnant.


Countries in which contraceptives were easily available did not have a higher rate of adolescent sexual activity than the United States.

Among adolescents who report that they intended to become pregnant, researchers generally delineate two subtypes. The first subtype tends to be influenced by a culture that accepts and may even reward early pregnancy. Interviews with African-American adolescent mothers in a poor section of the Washington DC area revealed that their pregnancies were almost always intended and desired. In this group, early pregnancies were common, and were modeled by mothers, aunts, and peers, and it was generally assured that extended families would help in caring for the children.

The second subtype of adolescents intending to conceive are often motivated to gain respect as an adult, to have someone to nurture and love, or to manipulate others, such as a boyfriend. Within this group, "intentional" does not necessarily mean "desired." In fact, what may be desired is maturity or love, and pregnancy is viewed (consciously or unconsciously) as a means to that end.

Although intentional adolescent pregnancies undoubtedly occur, the issue of intention is methodologically complicated because reports of intentionality are usually collected after the pregnancy has occurred. An unintended, unwanted conception may be increasingly perceived as "desired" and "intended" as the pregnancy continues. It is likely that such an attribution is commonly made among adolescents who choose to deliver and parent their infants, because even though an adolescent may not have wanted to conceive, continuing to believe that a pregnancy was not intended may imply that the child is not desired.

The second and most common category of pregnant adolescents is composed of those who report that their pregnancy was accidental. These adolescents tend to understand the proper way to use contraception, but do so haphazardly or take risks and do not use contraception at all. Actual contraceptive failure accounts for an extremely small proportion of accidental pregnancies.

The third category of pregnant adolescents are those who are considered to be uninformed (or misinformed). Pregnancy is thought to have been avoidable if proper contraceptive information had been provided. Research from other developed countries shows that even young sexually active teenagers can successfully avoid pregnancy if they are given appropriate information and not left to seek information on their own. If adolescents lack accurate information, they cannot be expected to use contraception reliably. Furthermore, even among adolescents who are somewhat knowledgeable, their sophistication may be limited. Adolescents are not often likely to question the extent of their knowledge, and are more likely to act on their subjective (often inaccurate) beliefs about the probability of becoming pregnant. Most adolescents, even those who are fairly sophisticated, may benefit from appropriate information about contraception.

Implications for Prevention

Several findings from the cross-cultural study and from the studies of psychological factors have implications for the prevention of adolescent pregnancy, although some factors such as American poverty are not easily modified. However, two direct and readily implemented changes are recommended: more extensive education about sexuality and contraception, and an increase in the ease with which adolescents can obtain contraception. In addition, programs designed to enhance adolescents' life

options may give young women the incentive to delay pregnancy.

Programs designed to provide education about sexuality and contraception not only provide information, but also provide an opportunity for adolescents to reflect on their attitudes toward sexuality. For example, many adolescents delay the use of contraception for about six months after they begin having intercourse, either because they do not have accurate knowledge about reproduction or contraception, or because they cannot accept that they are engaging in something that they have been taught was wrong. Educational interventions might ameliorate these circumstances. A careful study of a comprehensive school-based program in Baltimore showed that providing education about sexuality and contraception was associated with postponement of first intercourse and higher contraceptive use. This finding is corroborated by studies indicating that adolescents who have had sex education are no more likely, and sometimes less likely, to initiate sexual activity than those adolescents who have not had sex education.

> Most studies comparing pregnant adolescents to nonpregnant peers find no psychological differences.

Three types of community-based programs in the United States have been designed to increase contraceptive availability. First, family planning clinics provide reasonably priced contraceptives, among other services. It has been found that clinics are used more frequently if they advertise and provide outreach services, such as community education programs. Second, school-based clinics, unlike family planning clinics, are not explicitly designed to provide contraception, although they can offer those services, along with sex education. Third, condom-distribution programs, usually arranged by family planning providers and public health organizations, choose locations ranging from emergency rooms to video arcades, and simply make condoms available. These programs often target young men. Although it is difficult to control for extraneous variables in community studies, some evidence suggests that condom-distribution programs may be associated with more condom use and lower adolescent birth rates in targeted areas. It deserves restating that there is no evidence that heightened contraceptive availability increases adolescent sexual activity.

> The most common category of pregnant adolescents is composed of those who report that their pregnancy was accidental.

Programs that enhance life options have been designed to target psychological factors that may aid in the prevention of adolescent pregnancy. These programs are based on the assumption that some adolescent pregnancies can be prevented if young women are instilled with a sense of self-worth and can understand the value of delaying motherhood in order to pursue educational and career opportunities. Examples of these programs are role modeling and mentoring programs, programs to improve school performance, and youth employment programs. Theoretically, these programs seem useful in preventing adolescent pregnancy, but studies have not evaluated their efficacy.

Summary

Most efforts to prevent adolescent pregnancy are community based. Professionals who work with adolescents should be familiar with family planning and school-based clinics, and with other agencies that provide sex education and contraception. Professionals should convey this information to adolescents in a way that makes these services seem accessible, for example, by giving phone numbers of free clinics and telling them that appointments are easy to make. The fear that sex education and contraceptive availability will encourage adolescent sexual behavior is clearly unfounded and the possibility that such interventions may prevent some young women from becoming pregnant and also prevent HIV and other STD infection cannot be overemphasized. Community based programs to prevent adolescent pregnancy are likely to be effective, but school based programs may reach more adolescents and thus be even more effective.

Robin MacFarlane, Ph.D., is a second year intern in clinical psychology at the Westchester Division of New York Hospital-Cornell Medical Center. This article is part of a larger chapter (with references for the summarized research) appearing in O'Hara, M. W., Reiter, R. C., Johnson, S. R., Milburn, A., & Engeldinger, J. (Eds.). (1995), **Psychological Aspects of Women's Reproductive Health.** *New York: Springer.*

Coming In Future Issues

- Juvenile Delinquency
- Eating Disorders
- Cross Cultural Prevention
- Community Prevention Models

Adolescent Pregnancy Prevention for Hispanic Youth

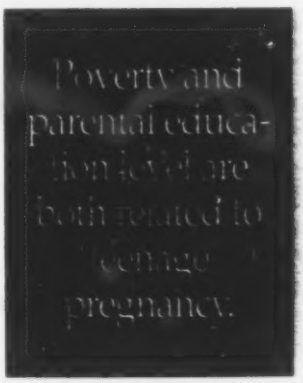
By Claire Brindis, DrPH

Several factors contribute to the high rate of population growth among Hispanics. Three factors most often cited are high fertility rates, relative youth of the population, and high levels of migration to the U.S. By the year 2030, it is projected that Hispanic youth will have increased by almost 80% to 10 million, Black youth will increase by 14%, and White youth will decline by 10%. In 1987, one in 10 Hispanic and Black teens gave birth compared with fewer than one in 20 Whites. By age 20, more than four of 10 Hispanic and Black teens, compared with fewer than two of 10 White teens, became mothers.

Hispanics traditionally have placed a high value on the family and on children. Many recent Hispanic immigrants retain the strong desire for many children that developed from the economic needs and high infant mortality and morbidity rates in their rural environment. Hispanic values about childbearing may change as they adapt to a more urban lifestyle, and viable alternatives to early childbearing are made more readily available.

Since Hispanics represent the fastest growing U.S. ethnic minority population, the problems of Hispanic adolescent pregnancy are of national concern. Few studies have sample sizes large enough to allow statistical analyses of cultural diversity within the Hispanic population. Thus, the comparisons reported here represent overall figures, within which there are wide differences between different Hispanic sub-populations.

It should be noted that Hispanics/Latinos in the U.S. are multi-ethnic, representing a diversity of cultures, nationalities, citizenship status, degrees of acculturation, educational backgrounds, and socioeconomic levels. In this article, "Hispanic" has been chosen as the generic term referring to Mexican-Americans, Puerto Ricans, Cuban-Americans, and others.



Poverty and Pregnancy: Poverty and parental education level are both related to teenage pregnancy. The poverty rate among Hispanic children ages 6-17 is 35.2%, compared with 41.9% among Blacks and 13.5% among Whites. In addition, only 40% of Hispanic teens live in families headed by a parent with a high school diploma, compared with 66% of Black adolescents and 80% of Whites. High dropout rates are also a problem, and the percentage of Hispanic dropouts is almost double that of Blacks (34% vs. 18%).

Early childbearing among Hispanics appears to be strongly related to limited perceived life options. Black, White, or Hispanic young women with below-average academic skills coming from families with below-poverty incomes are about five times more likely to be teen-age mothers than those with solid skills and above-average family incomes.

Forty percent of all female school dropouts cite pregnancy or marriage as the reason for leaving. Only 27% of young Hispanics who gave birth during their teen years completed high school by their mid-20s compared with 67% among Blacks and 55% among Whites. Two reports have indicated that family support for teen-age mothers was very different for Blacks and Hispanics. Blacks generally were encouraged to return to school, while Hispanics were viewed as having entered the realm of motherhood with primary responsibilities for the home rather than finishing their education.

Sexual and contraceptive behavior: There are cultural differences in sexual activity, knowledge of contraceptive methods, and use of family planning services. Almost half (49%), of never-married, Hispanic females aged 15-19 reported they had experienced sexual intercourse, compared to 61% of Black females and 52% of White females. Fifty-four percent of both Hispanic and Black teens ages 15-19 who become sexually active use contraception at first intercourse, compared to 69% of White teen-agers.

Contraceptive and sexual decision-making among adolescent Hispanic women suggests that cultural and religious factors may be important in determining whether or not the Hispanic teen-ager becomes pregnant. The value and status associated with marriage and motherhood also may affect contraceptive decision-making.

Other barriers restrict Hispanic youth in accessing the health services they need. These include: lack of sufficient knowledge regarding sex, contraception and how pregnancy occurs; language; lack of knowledge regarding available services in a community; high costs of care; and lack of insurance.

Acculturation: It has been suggested that acculturation is the key variable influencing adolescents' attitudes, behavior, and knowledge about reproduction and contraception. Hispanic students live both within their cultural framework and outside it, and integrate several cultures, neighborhood, ethnicity, and by no means least, the U.S. youth culture. For Hispanic youth, the disparity between the culture of their homes and the culture of their school environment may be quite significant.

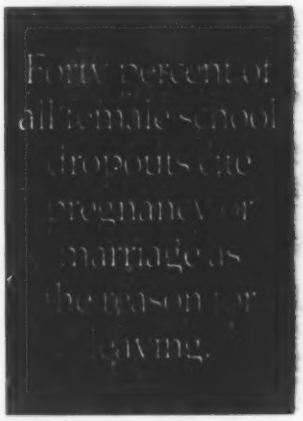
The acculturation process experienced by many Hispanics, especially recent immigrants, is affected by the need to learn family norms from their parents, as well as the norms of the society surrounding them. Because young people can adapt readily to the dominant culture, it sometimes is easy to lose sight of the need to reinforce cultural pride in ethnic minority students. Cultural pride is an important element of self-concept and self-esteem.

The acculturation process contributes tremendously to the complexity inherent in the Hispanic population, and the acculturation rate tends to vary intergenerationally and across gender. Acculturation is faster for the younger generation, and men traditionally acculturate more quickly than women.

Developing Effective Strategies

Several concurrent and reinforcing strategies must be used to effectively reach Hispanic youth. Family is a very important determining and orienting factor in Hispanic life, and will need to be a central part of efforts. However, since change and disruption frequently can be associated with one another, Hispanic families who experience a rapid rate of acculturation may be particularly stressed as the younger generation adopts values, beliefs, and lifestyles in conflict with those of the older generation.

Conservatism in Hispanic culture often creates a barrier to communication about human sexuality within the adolescent's family. The likelihood of an adolescent discussing sexuality and contraception with a parent is closely related to the degree that they had received a formal sex education, which is widely believed to be crucial in decreasing premarital adolescent pregnancies. Religious belief and commitment is an important factor in the decision of Hispanic female adolescents to postpone sexual intercourse, independent of the choice to remain in school and the effects of a stable family structure.



Early efforts that target the special needs of Hispanic females are critical. High dropout rates, coupled with relatively high birth rates, make their needs worthy of special and sustained attention. Comprehensive programs with a strong case management component are necessary to support efforts that encourage all youth to continue with postsecondary education. Given the relatively early sexual debut of many youth, programs should be targeted to both males and females to delay the onset of sexual debut and to use contraceptives effectively if they choose to be sexually active. Given the large number of Hispanic students who leave school between elementary, middle, and high school, efforts should be targeted to reach younger children with messages about the importance of continuing their education, even when they plan to marry and begin families. For this to occur, parents must be involved in understanding the value of education and delayed childbearing for their children.

Multicultural family life programs that are a part of an overall effort to improve all school experiences for Hispanics are needed. Family life education curricula provide a unique opportunity to address the traditionally taught issues such as anatomy, physiology, and birth control methods as well as broader issues such as communication skills, decision-making skills, and life planning. This can be done by drawing on the strengths and values of their cultural backgrounds.

Though homes and schools are seen as the sites where most young people are taught family life education, other community sites and organizations such as churches and community voluntary organizations have important roles to play in reinforcing responsible, healthy behaviors. Health educators should join with other community institutions to develop additional efforts that will help young people become increasingly integrated into their communities. For example, schools and churches may want to develop opportunities for voluntary or paid part-time positions, career and vocational exploration, after-school and weekend recreational and cultural learning experiences, along with tutoring and peer counseling programs. These efforts provide options to help explore a variety of learning channels. Many strategies geared to increasing young people's motivation to delay early childbearing also can help delay sexual activity.

Recommendations

Recommendations For State And Federal Policymakers

- Develop culturally relevant family life education programs and curricula on a national scale.
- Mandate curricula that includes strong cultural components that provide information about various ethnic backgrounds and experiences and promote acceptance and respect for diversity.

Recommendations For Educators And Service Providers

- Develop educational programs that are reflective of and responsive to the community surrounding the school.
- Increase the number of support services, including counseling, health and social services, and recreational activities
- Increase other formal links between schools and community clinic resources. Improve teacher and school personnel awareness of community resources to improve cross-referrals between institutions.
- Develop mentoring programs.
- To combat school dropout, several early intervention programs are needed, including transition programs to assist students between elementary to middle school and middle school to high school.
- Increase efforts to identify students at risk of leaving school prematurely and work closely with families to

increase the overall number of students who stay in traditional schools or who are enrolled in other meaningful educational and job training opportunities.

- Outreach programs in work sites, recreational programs, churches, and through the media are needed to reach dropouts to promote access to educational, counseling, and employment services.
- Develop or expand programs that provide access to postsecondary education.
- Develop community partnerships between businesses, schools, churches, community-based organizations, and parents.
- Promote skills in decision-making and goal-setting to enable youth to explore an expanded range of life opportunities.

Recommendations For School Districts

- Promote multiculturalism by recruiting and hiring multicultural and multilingual staff.
- Evaluate programs regularly to assess their effect and develop successful models in which multiculturalism is stressed.
- Develop programs that build on educators' knowledge of their students' cultural values and beliefs, combined with teaching methods that use the students' experiences in the development of curriculum and classroom activities.
- Provide adequate funding for programs by combining monies from the federal, state, and county governments as well as private donors.

Recommendations For Family Planning Educators

- Programs should focus on delaying the onset of sexual activity among younger teen-agers, and move toward preventing births through contraceptive use among older teen-agers.
- Programs need to document and address the prevalence of common myths held by adolescents.
- Develop strategies aimed at helping students develop alternatives to early childbearing and realistic life goals.
- Increase links with other professionals who provide care and support for young people.

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Prevention of Sexual Intercourse for Teen Women Aged 12 to 14

Leticia T. Postrado, Ph.D.; Faedra Lazar Weiss, M.A.H.L.; Heather Johnston Nicholson, Ph.D.

There is little disagreement that young teen women are better off postponing sexual intercourse until they are older. The most obvious adverse effect of early sexual intercourse is a high risk of unintended pregnancy, with its consequences to the young women involved, the children they may bear, and society. Early initiation of sexual intercourse is associated with a higher frequency of intercourse, a higher probability of intercourse with more than one partner, and a lower likelihood of using effective contraception. These behaviors are also associated with high rates of sexually transmitted diseases. Among United States adolescents diagnosed with AIDS the proportion of young women has more than tripled from 14% in 1987 to 43% in 1994. Equally important, early involvement in sexual intercourse diverts emotional energy from other maturational tasks, increasing young women's chances of unstable relationships, interrupted or abandoned education and career plans, and having more children than desired.

Over the past 20 years numerous studies have attempted to identify demographic, social and psychological variables that predict initiation of sexual intercourse. Many of these studies used cross-sectional data, precluding any determination of causal direction. Further, most researchers studied and generalized across a wide age range, typically teens ages 13 to 19, failing to take into account potential differences between younger and older adolescents in sexual attitudes and behaviors and other factors affecting these. Studies that did concentrate on a narrower age range usually focused on young people in their mid-teens (ages 15 to 19) or older.

This study developed a causal model of factors influencing the initiation of sexual intercourse by girls ages 12 to 14. It included an evaluation of [illegible] adolescent pregnancy prevention program, focusing on initiation of sexual intercourse as the target behavior.

Factors related to early initiation of sexual intercourse

Previous studies have found correlations between both demographic characteristics and psychosocial characteristics and young women's early initiation of sexual intercourse. The best research available at the time of the study suggested the following factors increase or decrease risk:

- The more years of education a mother completes, the older her daughter is likely to be at

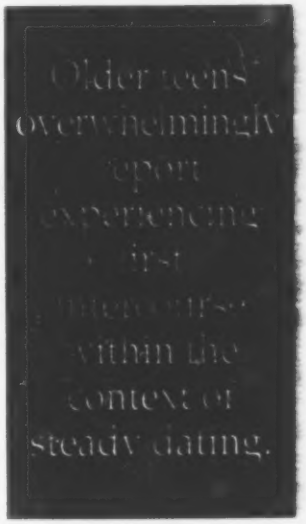
her first sexual intercourse.

- Young women who profess a high level of sexual bravado (overconfidence in one's ability to handle sexually charged situations) are more likely than their more cautious peers to engage in early sexual intercourse.
- Teen women's likelihood of initiating sexual intercourse increases with age.
- Teen women with high educational expectations are less likely than their peers with lower expectations to initiate sexual intercourse.
- Teen women who express positive attitudes towards pregnancy are more likely to initiate sexual intercourse.
- Having a steady boyfriend is associated with early initiation of sexual intercourse.
- The higher a young woman's educational aspirations, the less likely she will "go steady."
- Young African American women are more likely to initiate sexual intercourse at a younger age than are those who identify themselves as white or Latina. Although African American teen women have higher educational aspirations than their peers of other ethnicities, they also have a more positive attitude toward teen pregnancy.

Development of the Prevention Programs

Prevention of adolescent pregnancy is a complicated problem requiring a multifaceted approach. We developed the adolescent pregnancy prevention program with two components for girls ages 12 through 14 and two components intended for young women ages 15 through 17. Four sites piloted the comprehensive program from October 1985 through October 1988. As this study focused on the younger participants, only the program components intended for these younger teens are discussed here.

The research suggested that girls who communicate with their mothers are more likely to postpone sexual activity. Thus, the first program component offered to girls ages 12 through 14 was designed to increase current and future communication between the girls and their parents or other trusted adults with emphasis on communication about sex and sexuality.



In this demonstration phase, participants in the first program met for five two-hour sessions. In the first session, adults met with the trained facilitator in order to become acquainted and to address any concerns about discussing sex and sexuality with each other and their daughters. Ideally, parents and daughters attended the four remaining sessions together, participating as individuals, by generation, and as family teams to emphasize that differences in knowledge, values and opinions exist outside of the parent-child relationship. Topics covered included: factual information about the female and male reproductive systems, puberty and pregnancy; questions of value and opinion, such as appropriate dating behavior; and exercises helping parents and children to learn about each other and to encourage communication about subjects of mutual concern.

The second program component uses an engaging, interactive approach to help girls understand relationships, recognize peer and media pressure to become sexually active and develop assertiveness skills and peer support to counteract these messages. As appropriate for girls at this developmental stage, the program is value-based, directive and specific. Girls learn why abstinence is the best option for them and how to say no while developing positive relationships with peers of both sexes.

This second program consisted of six two-hour sessions. Activities included: addressing media and peer pressure to become sexually active through films, videos and activities; reasons to postpone sexual activity; and discussion of physical affection and dating situations. Many of the situations, including resisting "lines" and other pressure to engage in sexual intercourse, were explored through role plays.

In both program components, participants' questions, including questions about contraception, were answered calmly and factually.

Steady dating

Older teens participating in numerous studies overwhelmingly report experiencing first intercourse within the context of steady dating. Studies of older teen women suggest that they tend to engage in sexual intercourse in relationships they perceive as loving and committed, commitment being characterized by dating one person exclusively. We hypothesized that going steady even at a younger age would increase the likelihood that a teen would become involved in sexual intercourse. A secondary objective of this study was to examine whether greater extent of participation in the programs inhibited involvement in steady relationships, based on evidence that early involvement in exclusive relationships may restrict personal and emotional development.

Participants

Subjects in this study were 267 teen women who reported they had never had sexual intercourse. Most participants (75%) described themselves as African American; their average age at the time of their first of two annual surveys was 12.5 years. Average maternal educational level was less than high school graduation.

Findings

The results of this study bore out most, though not all, of our hypotheses. One of the most highly significant results was corroboration that for this younger age group, involvement with a steady boyfriend is a strong predictor of engaging in sexual intercourse. Thus, interventions that decrease the likelihood of going steady would appear to be important in programs designed to prevent adolescent pregnancy. Recent research indicates that a high

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percentage of teen women who have experienced sexual intercourse before age 15 have done so at least some of the time in abusive or coercive relationships, often with considerably older males, where they have little power to say no and make it stick.

Also as predicted, participants reporting higher educational aspirations on their first surveys were significantly less likely to initiate sexual intercourse. This finding leads us to wish that participants of other racial/ethnic backgrounds shared the high expectations more common among African American participants. Consonant with other research, older participants reported slightly lower educational expectations than did younger participants.

Attitude towards pregnancy was only slightly and not significantly more positive among African American teens than among their peers of other ethnicities at their first survey. Teen women with more positive attitudes toward pregnancy were significantly more likely to be involved in steady relationships, correlated with an increased likelihood of initiating sexual intercourse. Also, sexual bravado was a significant predictor of initiation of sexual intercourse.

Longer participation in the first program aimed at facilitating parent/child communication had no direct effect on initiation of sexual intercourse. Experience in the pilot program suggested that many girls ages 12-14 considered themselves too sophisticated for this program while younger girls expressed interest in a mother/daughter program. For this reason and in light of the need for age-appropriate prevention programs for younger girls, we have adapted this program for preteen girls ages 9 through 11.

Longer participation in our second program, which focused on refusal skills, was associated with a statistically significant decrease in the likelihood of first sexual intercourse. This finding suggests that our second program is achieving its objectives; practice in assertiveness skills and in resisting pressures for sexual activity combined with peer support are enabling participants to avoid sexual intercourse, even if they are dating or dating steadily.

Leticia T. Postrado, Ph.D. served as research associate and senior statistician for this project. She is currently data manager for the Center for Mental Health Services Research, Department of Psychiatry, University of Maryland (Baltimore). Faedra Lazar Weiss, M.A.H.L. is research associate at the Girls Incorporated National Resource Center. Heather Johnston Nicholson, Ph.D., is director of the Girls Incorporated National Resource Center and associate executive director for research, program and training of Girls Incorporated.

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Overviews of all four components of this program can be found in Truth, trust and technology: New research on preventing adolescent pregnancy. *Girls Incorporated: Indianapolis, IN. 1991. (Phone: 317-634-7546). and H.J. Nicholson and L.T. Postrado (1992). A comprehensive age-phased approach: Girls Incorporated. In B.C. Miller, J.J. Card, R.L. Paikoff & J.L. Peterson (Eds.),* Preventing Adolescent Pregnancy: Model programs and evaluations. *Sage.*

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THE PREVENTION OF JUVENILE DELINQUENCY: A REVIEW OF THE RESEARCH

By Edward P. Mulvey, Michael W. Arthur and N. Dickon Reppucci

Juvenile delinquency is a complex problem that exacts a substantial and continuing toll on our society. After being stable for more than 10 years, juvenile violent crime rates soared between 1988 & 1994. If this trend continues they will double by the year 2010. Social indicators suggest that recent declines in the proportion of teenagers in the population may soon reverse as children of the "baby boomers" come of age. Emerging trends in family demographics also reveal that more children than ever are growing up homeless, in poverty, and in single parent homes, while funding for social programs is decreasing. While the exact mechanisms and likely strength of the relationships between these conditions and juvenile crime remain ambiguous, these trends suggest that the press to find adequate intervention methods for juvenile delinquents will only increase.

Primary and secondary prevention of delinquency rest on the principle of identifying individuals and environments at risk for delinquent activity before the behavior has occurred and then either removing risk factors or strengthening resistance to the risk factors. The impact of this approach depends upon the process of identifying risk factors and the choice of when and where to direct the intervention. When in the life course of what targeted individuals is what intervention most likely to be successful?

Family-Based Preventive Interventions

The family is one of the most logical starting places for prevention efforts. Because of the weight of recent empirical evidence relating family functioning to various forms of adolescent antisocial behavior, and alarm at the rapidly changing demographics of U.S. families, early family intervention has received wide endorsement as a locus for preventive intervention.

Early family interventions, however, may be perceived as an invasion of privacy. They may also stigmatize or inappropriately label youth and families as problems, and may have unanticipated negative long-term effects. These barriers to primary prevention may prohibit well-intentioned interventions from being adequately implemented. To provide both widely acceptable services and targeted programs for those who need it most, preventive efforts have generally been of two types: (a) those that focus on training parents in family management techniques, and (b) those that provide an array of supportive services such as child care and/or medical and social services to socially disadvantaged families.

FROM THE EDITOR'S P.C.

Dear Prevention Colleagues:

I am pleased to welcome you to our Spring issue of The Prevention Researcher newsletter. This issue focuses on The Prevention of Juvenile Delinquency and our guest contributors are Edward Mulvey, Ph.D., Michael Arthur, Ph.D., N. Dickon Reppucci, Ph.D., Carolyn A. Smith, Ph.D., Alan J. Lizotte, Ph.D., Terrence P. Thornberry, Ph.D., Marvin D. Krohn, Ph.D., William H. Quinn, Ph.D., Keith Bell, M.S. Jennifer Ward, B.S., Julie O'Donnell, Ph.D., J. David Hawkins, Ph.D., Richard F. Catalano, Ph.D., Robert D. Abbott, Ph.D., and L. Edward Day, Ph.D.

Our line-up of authors this issue is impressive. All are well versed and published in the field of juvenile delinquency and prevention strategies. We are most appreciative of their efforts to assist us with this important and timely issue.

I must report to you, our readers, that our previous issue on Pregnancy Prevention was a turning point for The Prevention Researcher. We received more calls, e-mail, faxes, and snail mail than any other previous topic we have covered. Mental health professionals nationwide are clearly concerned and deeply involved with understanding the need to reach out to young people around pregnancy and high risk behaviors of our teens. This appears to be a high priority in the prevention field for 1997!

We appreciate feedback from our subscribers; it is important for us to know what you are thinking and what the most critical prevention issues are on your agenda. Thank you for keeping us in the loop!

All the best for a great summer.

Steven Ungerleider, Ph.D.
Psychologist/Editor

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Parent Training. Parent training interventions developed during the 1960's when behavioral-oriented child therapists recognized the importance of involving parents in child behavior management in the home. Unfortunately, although several studies have supported the efficacy of parent training for reducing problem behaviors of conduct-disordered youth, scant evidence exists concerning its effectiveness as a primary prevention strategy. Because parent training is typically a component of community-based or school-based interventions, it is impossible to separate its effects from the other aspects of the interventions. One interesting finding, however, was that siblings of behavior-disordered youths were less likely to exhibit problem behaviors and delinquency following intervention than siblings of comparison youth.

Perhaps the most consistent finding across the parent training literature is the difficulty of keeping families with the greatest need engaged in programs on a regular basis. Dropout rates over 50% are reported. In addition, it has been demonstrated that multistressed parents are more likely to have parenting difficulties, and are less likely to complete training programs and/or continue to apply the skills they have learned after completion of the program. Thus, while evidence for the efficacy of this approach exists, it is compromised by the likelihood of self-selection, and the inability of most designs to isolate the effects of parent training as a separate strategy.

Family Support Interventions. These provide a broad array of social support services, including day care, medical care, counseling, family needs assessment, and referrals to other social service agencies. Although an oft-cited example of this type of casework approach to delinquency prevention, the Cambridge-Somerville Youth Study, apparently had negative long-term effects on participants, more recent interventions have shown evidence of positive impact. While the effectiveness of day care, particularly with infants, is currently being debated, there is general agreement that quality day care is beneficial to disadvantaged families. Other studies have demonstrated that supportive interventions with parents of high-risk, low birth weight infants can erase the cognitive and parenting problems associated with low birth weight. Few studies, however, have examined the long-term effects of day care and other family support interventions on later delinquency and antisocial behavior.

School-Based Preventive Interventions

The second major social system historically charged with responsibility for socializing youth is the school. A large body of research has shown that low IQ, learning disability, poor attitudes toward school, and school failure are related to and often precede official and self-reports of delinquent behavior. While schools traditionally have provided a number of individual-focused prevention services such as free lunches, health screening, counseling, and remedial and special education, system-level preventive interventions have only recently been tried. These interventions have been encouraged by research showing that school processes and climate are related to academic achievement and rates of delinquent behavior. However, individual-focused interventions are still far more common than system-level interventions.

Preschool Programs. The best known school-based preventive intervention undoubtedly is Project Head Start. Started as a component of President Johnson's War on Poverty, the program's intent was to prevent academic problems among economically disadvantaged children by providing a broad range of social services centered around a creative preschool curriculum. Evaluations of Head Start programs' impact on participants have been mixed and reflect variations in the quality of Head Start programs and in outcome measures used in the evaluations.

The evidence generally suggests, however, that many Head Start programs produced short-term improvements in children's IQ and

academic performance and long-term improvements in school functioning. These include less need for special education placement, less likelihood of grade retention, and greater likelihood of graduation. Additional benefits to communities and mothers of Head Start children have only recently begun to be assessed. Longitudinal studies of similar preschool programs have produced even more striking results.

Evaluations of the specific effect of Head Start on preventing delinquency are sparse. However, some results demonstrate its potentially long-lasting effects on the development of delinquent behaviors and the importance of longitudinal assessments of program outcome. Although the findings of this one program cannot be generalized to all preschool programs with all disadvantaged children, they do indicate that programs of this type may have profound impact on participants, with delinquency prevention one of the ultimate outcomes.

Cognitive-Behavioral Interventions. Cognitive-behavioral interventions are based on the idea that conduct disorders such as juvenile delinquency can result from an inability to develop and maintain positive social relationships due to deficits in social skills. These interventions can be described as either: 1) Interpersonal cognitive problem-solving programs which focus on processes such as interpreting social cues, generating alternative solutions to social problem situations, evaluating the likely outcomes of different solutions, and means-ends thinking; or 2) Behavioral social-skills-training programs which focus on teaching specific behaviors such as entering a peer group, accepting criticism, giving compliments, and resisting peer pressure.

Evaluations of cognitive-behavioral skills-training programs have shown consistent, short-term improvements in problem-solving abilities, particularly for younger, disadvantaged children. The evidence for long-term behavioral improvements is not clear.

Social Process Interventions. Some researchers have designed interventions to alter the social structures and processes of schools to facilitate better adjustment among students. Though some of these interventions incorporate social skills training, their major focus is to change the school social environment to encourage greater involvement and commitment among students. One type of system-level intervention focuses on changing teacher practices within the classroom to increase the bonding of low achievers. This approach is discussed in detail by Drs. O'Donnell, Hawkins, Catalano, Abbott and Day in this issue.

Community-Based Preventive Interventions

Community Organization. It was recognized during the 1920's and 1930's that most juvenile delinquents in Chicago lived in low socio-economic status (SES), inner city neighborhoods characterized by rapid residential transition, high unemployment, and a lack of citizen involvement. Accordingly, the Chicago Area Project was developed to prevent delinquency by organizing neighborhood residents to provide greater structure, supervision, and opportunities for positive involvement of youth. Despite evidence that delinquency rates in the Project neighborhoods declined by almost 50% during the 1930's, the Project was never systematically evaluated and its effectiveness at preventing delinquency remains unproven. However, the Project was successful at organizing community residents, and continues to support neighborhood groups in South Chicago to this day. Recent studies based on this pioneering work continue to provide evidence that community disorganization is related to higher crime rates.

Current interventions that focus on increasing community involvement to prevent crime generally are limited to developing Neighborhood or Block Watch organizations, or citizen patrols such as the Guardian Angels. While in some instances the development of such programs has been shown to reduce crime and fear of crime, other studies have shown that it is hardest to organize these programs in high crime neighborhoods, and that in some programs fear may increase. Moreover, some studies suggest that neighborhood organizing has little direct effect on delinquency when compared with family, school, and peer influences. Although efforts to improve neighborhood environments and community organizations should not be abandoned, there is little evidence at present that these efforts alone will have a significant impact on juvenile crime.

More targeted community-based programs aimed at providing a comprehensive, caring environment for adolescents have also been established and enjoy some positive regard by practitioners. These programs all operate from the premise that adolescents experiencing trouble need a supportive place to find help with a variety of problems. Following this logic, these settings try to deal with adolescents by offering multiple services for multiple problems, attempting to be responsive to the particular life situation of the individual youth who comes to them for help. Evaluations of this approach have been sparse, although there is an inherent attractiveness to the notion of creating an accessible, nurturant, and flexible environment for youths who are least likely to connect with conventional professional services.

Youth Recreation. Over the years, numerous youth recreation programs such as the Police Athletic League, Boys' Clubs, and the Fresh Air Fund have developed to provide constructive activities for youth and reduce their involvement in antisocial activity. A few studies have shown a relationship between participation in organized athletic programs and lower levels of delinquent activity, particularly for working class boys. Currently more than 20 million youths aged 6-15, participate in some form of organized, extrascholastic sports activity. This has prompted some researchers to suggest that organized sports may have considerable potential for promoting competence and preventing delinquency. Unfortunately, this potential has never been systematically assessed.

Similarly, recent studies indicating that children and adolescents spend more than 20 hours per week watching TV has increased concern about the impact of TV violence on behavior. Moreover, studies have typically shown moderate correlations between the amount of violence seen on TV and aggressive behavior, with some evidence that the effect of viewing televised violence as a young child may have a relationship to adolescent delinquency. Given this possibility of the media as an influence on adolescent attitudes, commercials designed to discourage drug use and encourage parent involvement with their children have recently been developed. However, the impact of these commercials on substance use and/or delinquent behavior has not been assessed. It should be recognized that the impact of commercials versus that of regular programming may be significantly different.

Summary

In sum, recent research has provided some encouraging evidence that prevention programs can prevent juvenile delinquency. Demonstrations of the links between these efforts and actual reduction in delinquent behavior in the groups of most interest is, however, still tenuous. There is some evidence that parent training programs can reduce the emergence of child behavior problems up to 8 years following intervention, and that structural family therapy can prevent delinquency. However, these interventions appear to be less successful with high risk, multiproblem families and families of older children due to problems with recruitment and maintained use of the parenting skills taught. For lower SES and minority families, some family support and structured preschool interventions were able to reduce the risk of delinquency many years following intervention. School programs that change teacher behavior and/or school organization seem to improve the school behavior and performance of low achievers, as do social skills and cognitive problem-solving interventions, but the long-term impact of school programs on delinquency has not been established. Community approaches to delinquency prevention are difficult to evaluate and have not been adequately tested. The available literature points toward the importance of integrating the more successful approaches into a comprehensive strategy, rather than expecting any single approach to have a large effect.

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Resilience to Delinquency

By Carolyn A. Smith, Ph.D., Alan J. Lizotte, Ph.D., Terence P. Thornberry, Ph.D., and Marvin D. Krohn, Ph.D.

A considerable body of research has identified factors that place adolescents at risk for negative life outcomes, including serious emotional and behavioral problems. There is widespread agreement on the clusters of risk factors associated with such outcomes. These risk factors include disruption, abuse, and hardship in the early family environment. Evidence suggests that it is the accumulation of risk which tends to be associated with the most serious later problems.

We know, however, that all youth subjected to high levels of risk do not experience serious effects. Longitudinal studies have clearly demonstrated that many children apparently at risk are in fact resilient, that is, able to overcome developmental hazards and adversity without serious problems. Resilience can be attributed to protective factors that counteract risk and buffer or protect children in precarious situations. Identifying such factors is a promising field of research which suggests fruitful areas for prevention and intervention.

To illustrate with two contrasting scenarios, imagine two children with the same level of risk based on their family backgrounds, marked by incidents of maltreatment and changes of adult caretakers. Some of these parenting figures provide strikingly poor role models in a variety of ways. By early adolescence, the first child exhibits conduct problems at home and school, as well as aggressive behavior with peers. In later adolescence, this child has an accumulating history of delinquency, including several serious assaults, and is eventually sent to prison. In contrast, the other child subjected to a similar level of risk and also displaying incipient problem behaviors, is able during early adolescence to make new connections with school resources, including perhaps a particularly concerned teacher, and remains in school. He or she finds a recreational peer group focused on prosocial activities and, although drawn into some minor delinquency or experimental substance use with neighborhood friends, graduates from school and makes an effective transition to adulthood.

Although both children could be assessed as high risk during early life, we call the latter resilient because he or she makes an appropriate transition to adult roles and productive behaviors. This is possible because of protective factors which have buffered the child from the earlier disadvantaged scenario. Protective factors or mechanisms come into play once risk is established, and affect the likelihood of developing psychological or behavioral problems.

Although a great deal of resilience research has focussed on mental health

outcomes, one of the research areas in which the resilient youth perspective is beginning to be employed is that of delinquency, thereby extending the discussion of vulnerability and resilience to behavior which has the potential to cause serious social harm as well as disruption in the lives of the adolescents themselves.

This article builds on the interdisciplinary knowledge base regarding resilience, focusing on risk and resilience in relation to serious delinquency problems. The study summarized here first identifies adolescents whose early life is marked by multiple family disadvantages often associated with later delinquency. It then distinguishes between those high-risk adolescents who are resilient and those who engage in serious delinquency, including short term and longer term differences between these groups.

Sample

The study uses data from the Rochester Youth Development Study (RYDS), originally funded by the Office of Juvenile Justice and Delinquency Prevention to further our understanding of serious delinquency among American teens. The RYDS follows the course of development of public school students from Rochester, New York, who were first interviewed in 1988 when they were 7th and 8th graders.

The sample was selected to maximize the number of serious offenders in the study. Proportionally more adolescents were selected from areas marked by high adult arrest rates, and teenage boys were oversampled 3 to 1 relative to girls. Interviews were initially conducted with students and parents at six-month intervals. School, police, court, and social services data have also been collected regularly on sample members.

The sample for this study includes 772 adolescents, of whom 69% are African American, 16% are Hispanic, and 15% are white. The project has been able to maintain a high level of cooperation with study members; 88% of the original sample was interviewed during the last round of data collection used in this analysis, four and a half years from the start of the study.

Risk factors: Based on information about their early lives, risk was identified by family circumstances and family dysfunction that have been related to delinquency in a number of studies. High-risk youth were defined as those with five or more of the following nine family-based risk factors in their background: parents with low educational levels; unemployed parents; parents who received welfare benefits; a mother who had her first child as a teenager; moving frequently; family members in trouble with the law or abusing substances; an official record of child abuse; and placement in foster care or care outside the family.

Resilience: To be considered resilient, a high risk teenager had to have no involvement in serious delinquency during the time period covered. Delinquency was assessed through a self-report index of offenses ranging from petty theft and status offenses to serious assaults and drug sales. Resilient adolescents may have been involved in status offenses or minor delinquency such as petty theft, since resilience should not be equated with total avoidance of misdeeds. Short-term resilience was defined as avoidance of serious delinquency during grades 8 and 9, and long term resilience was defined as avoidance of serious delinquency between grades 9 and 11.

Table 1
Protective Factors Against Delinquency at Grades 8 and 9

Family Factors:
- Parental Supervision
- Child's Attachment to Parent
- Parent's Attachment to Child
  Parent's Involvement in Child's Activities

School Factors:
- Reading Percentile
- Mathematics Percentile
- Commitment to School
- Attachment to Teachers
- Aspirations to go to College
- Expectations to go to College
- Parent's Expectation for Child to go to College
  Parent's Values about College

Peer Factors:
- Peers' Conventional Values
- Parent's Positive Evaluation of Peers

Other Factors:
Child's Self-Esteem
Child's Involvement in Religious Activities
Child's Involvement in Prosocial Activities
Child is Close to an Adult Outside the Family

• *Factors that distinguish between resilient and non resilient youth*

Protective factors: An important focus of the study is the role of factors that operate in adolescence to protect youth at risk from the accumulation of childhood risk factors. A wide range of factors and mechanisms can be considered protective and various ways to categorize protective factors have been proposed. This study examined family, school and peer factors, as well as some other potentially important factors.

Family factors have always been considered the mainstay of positive growth and development among youth. Considerable research across disciplines has reinforced the importance of family attachment and family supervision. School factors—including school achievement, aspirations, connections to teachers, and commitment to learning by students and family—promote a sense of competence and connection with conventional opportunities and institutions. Peer factors include involvement with prosocial peers who also foster conventional values and connections. Other factors outside the family-school-peer nexus that have been associated with protection include religious participation, participation in prosocial activities, self-esteem, and the availability of supportive adults other than parents.

Results

• We found that high-risk youth are more likely to engage in serious delinquency. Eleven percent of the low-risk youth engaged in serious delinquency in early adolescence (grades 8 and 9), in comparison to 36% of those at high-risk. Having five or more risk factors

Figure 1

Relationship between Protective Factors at Grades 8 and 9 and Resilience to Delinquency at Grades 8 and 9 (High-Risk Youth Only)

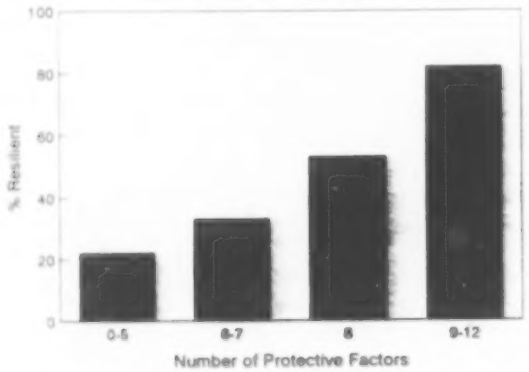
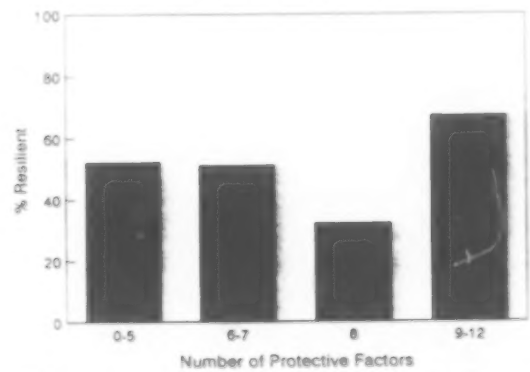


Figure 2

Relationship between Protective Factors at Grades 8 and 9 and Resilience to Delinquency at Grades 9 and 11 (High-Risk Youth Only)



increases threefold the overall likelihood of adolescents being involved in serious delinquency.

• A relatively high proportion of at-risk adolescents in this study did not go on to engage in serious delinquency. Almost two-thirds (64%) of high-risk adolescents are resilient to delinquency. This is a promising and exciting finding, which enables a comparison between the group of adolescents who did develop negative outcomes, and a comparable group who did not.

• This analysis identified twelve factors related to resilience. Table 1 identifies which of these protective factors distinguish between high-risk youth who are resilient and those who engage in delinquency. High levels of resilience were found among youth who: are committed to school, do well in school, and intend to continue their education; experience high levels of parental supervision and attachment; and associate with conventional peers and peers who are approved of by their parents. The most powerful resilience factors against both delinquency and drug use were school factors, followed by family factors and positive peer activities. Other sources of protection mentioned in the resilience literature, such as self-esteem, involvement in religious and prosocial activities, and involvement with other adults, were not related to resilience in this study.

• Although statistically significant, each of these protective factors taken separately had a relatively small impact on resilience. Taken together, however, these factors strongly increase resilience, at least during grades 8 and 9 (see Figure 1). Of the high-risk youth who had between 0 and 5 of these protective factors, only 22% were resilient. As the number of protective factors increases, so does the level of resilience. Eighty-two percent of the youngsters who have nine or more protective factors were resilient.

• Figure 1 and Figure 2 illustrate that higher numbers of protective factors tend to be associated with increases in resilience only in the short run, during early adolescence (grades 8 and 9). Higher numbers of protective factors do not significantly increase resilience for high-risk adolescents later in adolescence (between grades 9 and 11). These findings suggest that in the short term (coinciding in this analysis with peak ages for delinquency), protective factors are important for high-risk youth. During this time period, high-risk youth with high protection are similar to low-risk youth in levels of delinquency. However, in the long run protective factors appear to have little effect on delinquent behavior for high-risk youth.

Discussion

Accumulated risk factors identified from the literature were indeed associated with increased rates of delinquency, although about two-thirds of the high-risk youth were resilient to serious negative outcomes. The most important factors for resilience to delinquency were school success, followed by family and peer factors. Cumulative protective factors increase resilience to delinquency, although the influence of protective factors lessens over time.

Our findings suggest that it is the accumulation of protective factors which serve to balance risk rather than protection from any one specific source or area. This certainly suggests that support for at-risk adolescents needs to come from broad constituencies, including schools, families, and communities.

Some questions remain: If factors occurring naturally are protective, can these be artificially provided with equal effect? Does the effect of protective factors depend on the stage of development of the child? Since the effects of factors in early adolescence appears to diminish with age, are new protective factors important at later ages? Does the impact of existing protective factors change and does the relative impact of risk change within different life phases?

These findings join growing research evidence suggesting the potent role of positive educational experiences for students and for parents, and emphasize the potential for schools to undergird the development of high-risk adolescents. Some school systems have been successful in providing positive educational experiences within communities where

many adolescents are at high risk through implementing planned change agendas focusing on building strengths and protection; these schools tend to have high levels of parent and community involvement.

Adolescents at risk for escalation to more serious forms of disruptive behavior often have deficits in academic skills and interests, as well as involvement with deviant peers and lack of family support. Protection in all these areas is important when students are at high risk for delinquency. The multiple challenges of at-risk students need to be addressed through collaborative efforts between service providers and educators. Intervention programs for high-risk adolescents certainly need to include educational and school-based components. Group approaches to building social skills and skills in resisting negative peer influence can be helpful in assisting teenagers to find conventional networks for peer support. Providing practical assistance and support to families who are struggling with challenging adolescents is another important arena of protection.

Perhaps only some levels or types of risk can be buffered by the protective factors described above. Interventions that modify risk status are important since early risk factors continue to affect unfolding development, eventually compromising the chances of a successful transition to adulthood. Infancy and early childhood are critical periods for addressing child and family risk factors. Family support programs that help parents reduce environmental stress and foster positive child development are associated with better child outcomes and improve the likelihood of early school success. Early interventions to prepare at-risk children for school and other difficulties include good day care and compensatory educational programs such as Head Start.

This article is summarized from a chapter entitled "Resilient Youth: Identifying factors that prevent high-risk youth from engaging in delinquency and drug use" pages 217-247 in John Hagan (ed.), Delinquency and Disrepute in the Life Course. *Greenwich, CT: JAI Press. Some material is also taken from C. Smith and B. Carlson, "Risk, stress, and resilience in childhood and adolescence: Implications for social work intervention" which is forthcoming in* Social Service Review.

Carolyn A. Smith is an Assistant Professor in the School of Social Welfare, Alan J. Lizotte and Terence P. Thornberry are Professors at the School of Criminal Justice, and Marvin D. Krohn is a Professor in the Department of Sociology, all at the University of Albany, State University of New York. In addition, the authors are all co-principal investigators of the Rochester Youth Development Study, which examines the causes and correlates of delinquency and other problem behaviors among youth.

Seattle Social Development Project: Preventing Delinquency Among Low-Income Children

By Julie O'Donnell, Ph.D, J. David Hawkins, Ph.D., Richard F. Catalano, Ph.D., Robert D. Abbott, Ph.D., and L. Edward Day, Ph.D.

Poverty puts children at risk for school failure and dropout, serious delinquency and crime, and alcoholism and other drug problems. Problems facing children in poverty are particularly pressing now that one-fourth of America's children live in poverty, and it is estimated that by the end of the decade one-third of our school-age children will live in poverty. Our society is failing to provide adequate schools and skills to low-income students. Over half of poor students do not graduate from high school. Significant federal and state investments (e.g. Chapter 1, Head Start) have been made to counteract the educational disadvantage of poverty. Too often these support programs have been remedial, offered only after a child has experienced difficulty.

Numerous studies have identified relationships among the problem behaviors of school failure, dropout, delinquency and substance abuse. The interrelationships among these behaviors suggests the promise of preventive interventions that seek to reduce shared risk factors leading to adolescent problem behavior. It seems probable that a preventive approach delivered to schools with a high proportion of low-income children might be effective in counteracting the effects of poverty.

The Seattle Social Development Project (SSDP) included a six-year, elementary school-based, preventive intervention that sought to reduce known predictors of diverse problem behaviors and promote protective factors leading to healthy development by intervening simultaneously in the school and home environment. This article summarizes the effects of the project on low-income children at the end of Grade 6.

The theory that guides the SSDP, the social development model (SDM), hypothesizes that adolescent problem behavior is prevented by high levels of social bonding—attachment and commitment—to prosocial

others. Strong bonds to family and school protect children because, when they care about these relationships, they are less likely to do things that threaten those bonds. The SDM specifies the processes that determine children's levels of bonding.

In the SDM, an individual's level of bonding to a social unit is determined by three protective processes: *opportunities, skills,* and *reinforcements*. The model proposes that positive social bonds to school and family, and belief in family and school values, develop when students have *opportunities* for active classroom and family involvement, when classroom and family experiences lead to *skills* for successful participation, and when the classroom and family environments provide consistent *reinforcement* for productive involvement. Teaching and family practices that maximize these processes should promote success, enhance social bonding, and lessen problem behavior among students.

Project Interventions

SSDP is a longitudinal field experiment that is following a group of multi-ethnic, urban students who entered Seattle schools in 1981. The project tested an intervention designed to reduce the risk factors that lead to academic failure, drug abuse and crime among children of poverty. It combined modified teaching practices in mainstream classrooms, child social skills training, and developmentally adjusted parent training. The strategies were designed to reduce risk while enhancing protection by creating opportunities, skills, and reinforcements for children in both classrooms and families.

Classroom interventions. In Grades 1 through 6, intervention teachers were trained in the instructional methods of proactive classroom management, interactive teaching, and cooperative learning. This training was sequenced across the academic year so teachers could master and practice each method before the introduction of new methods.

Proactive classroom management establishes an environment that is conducive to learning and promotes appropriate student behavior while minimizing classroom disruption by establishing routines, giving clear behavioral instructions, and recognizing students' attempts to comply.

Interactive teaching assumes that, given appropriate instruction, virtually all students can develop the skills for classroom success. Students master specified learning objectives before moving ahead, are graded based on improvement over past performance, and are often monitored to assess comprehension.

Intervention teachers were also trained to use cooperative learning which involves the use of small groups of students with varying abilities and backgrounds as learning partners. Students work in teams to master material and share recognition for their group's academic performance. Grades are based on each student's academic improvement over past performance.

The classroom interventions targeted the risk factors of academic failure and early antisocial behavior while increasing opportunities, skills and reinforcement for classroom involvement.

Both intervention and control teachers (who received no training from the project), were observed in the classroom annually and assessed on their use of project teaching practices. In five of the six years of the study, intervention teachers used the teaching strategies significantly more than control teachers.

Child social skills training. Children in intervention classrooms received social skills training in Grades 1 and 6. First grade intervention teachers were trained to provide cognitive problem-solving instruction in the classroom as a means of improving social adjustment. Intervention students also received refusal skills training in sixth grade, teaching students to recognize and stay out of trouble while retaining their friends. The child skills training component targeted the risk factors of early antisocial behavior, peer rejection, and involvement with antisocial others. It also sought to develop skills for positive involvement so that children could accomplish social goals without resorting to problem behavior.

Parent training. Developmentally-appropriate parent training classes were offered, by project staff of mixed ethnicity, to the adult caretakers of intervention students on a voluntary basis. In Grades 1 and 2, *"Catch 'Em Being Good,"* taught caregivers to pinpoint desirable and undesirable behavior in their children, communicate behavioral expectations and consistently reinforce children' desired behaviors while using moderate negative consequences for undesired behaviors. In Grades 2 and 3, *"How to Help Your Child Succeed in School"* focused on improving family communication and involvement by teaching caregivers to help their children develop reading and math skills.

In Grades 5 and 6, *"Preparing for the Drug Free Years"* focused on preventing substance abuse among children by teaching caregivers to (a) establish shared family policies on drugs, (b) teach their children social influence resistance skills, (c) improve self-control skills, and (d) create new ways for adolescents to contribute to the family. The parent interventions were designed to reduce the risk factors of poor family management, family conflict, academic failure and low commitment to school, norms favorable to substance use, and association with antisocial peers while increasing family bonding.

Data Collection and Analyses

Student survey, teacher report, and achievement test data were collected from students when those normally progressing entered Grade 5 and, again, when they completed Grade 6. For these analyses, students were divided into two conditions: control group (students who received no intervention during Grades 1 to 6) and full intervention group (students exposed to at least one semester of the intervention in Grades 1 to 4 and at least one semester of intervention in Grades 5 to 6).

Low-income sample. The low-income sample had 106 students (58% control and

42% intervention) which was 54% female, 24% European American, 42% African American, 25% Asian American, 7% Native American and 3% Other.

Analyses compared the low-income intervention and control groups on measures of the SDM constructs (classroom and family opportunities, skills, reinforcements, and levels of bonding) and outcome measures (norms against substance use, drug and delinquency initiation). Table 2 highlights some of the project outcomes found among low-income girls and boys at the end of Grade 6.

Findings and Discussion

A number of statistically significant differences were found between the intervention and control groups in both the low-income female and male samples at the end of Grade 6. However, the results differed for females and males.

Intervention girls perceived more opportunities and reinforcements for classroom involvement and expressed stronger school bonding in both the attachment and commitment dimensions. Seven percent of the intervention girls had smoked by the sixth grade compared with 36% of the control girls. These intervention girls were also less likely, although not significantly, to have initiated alcohol or marijuana use.

Intervention boys were significantly more socially competent and had better schoolwork skills than control boys. Intervention boys also reported higher grades and scored higher on the combined math, reading and language arts standardized batteries from the California Achievement Test than controls. The findings suggest that, among low-income boys, the intervention positively influenced academic and social skills. Intervention boys also perceived slightly more reinforcements for classroom involvement and exhibited more bonding to school than control boys. Only 47% of intervention boys had initiated delinquency by the grade 6 assessment compared with 67% of the control boys.

However, the intervention did not influence all of the hypothesized outcomes. Family bonding and management practices did not differ between intervention and control groups in either the male or female samples. This may be attributable to low attendance at parenting classes.

The pattern of results suggests gender differences in intervention effects. Intervention girls perceived increased classroom opportunities and reinforcements, and boys' social and academic skills were improved. Few investigations of the effects of preventive interventions have looked separately at males and females. Such analyses may be important.

The intervention resulted in significantly lower levels of tobacco use and in tendencies toward less alcohol and marijuana use by low-income girls. Fewer low-income intervention boys had initiated delinquent behavior. In both instances, the observed effects were associated with increased bonding to school. For low-income girls, school measures of attachment and commitment (bonding) were both negatively correlated with drinking, smoking and marijuana use. Similarly, among low-income boys there were significant negative correlations between school bonding measures and delinquency initiation.

The small number of low-income students available for outcome analysis suggest caution in generalizing from these results. However, these findings provide support for the potential of comprehensive school-based strategies in affecting children from low-income families.

Table 2
Differences Between Low-Income Girls and Boys at Grade Six

	Girls	Boys
Opportunities		
Classroom	✓	
Team learning	✓	✓✓
Skills		
Social		✓
Schoolwork		✓
CA Achievement Test		✓
Grades		✓
Family management		
Reinforcements		
Classroom	✓	✓✓
Parents		
Bonding		
School attachment	✓	✓✓
School commitment	✓	✓
Bonding to mother		
Bonding to father		
Substance Use Norms		
Perceived risk		
Acceptability (peers)		
Drug Use and Delinquency		
Alcohol	✓✓	
Tobacco	✓	
Marijuana	✓✓	
Delinquency		✓✓

✓ Intervention exceeded control to a statistically significant degree
✓✓ Intervention exceeded control to a degree approaching statistical significance.

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Family Solutions For Juvenile First Offenders

By William H. Quinn, Ph.D., Keith Bell, M.S., and Jennifer Ward, B.S.

In recent years, the juvenile crime rate has soared. If trends continue as they have over the past decade, juvenile arrests for violent crime will double by the year 2010. Rates of violent youth crime increased more than threefold between 1965 and 1992. Victims of these crimes are often juveniles themselves. Any juvenile between ages 12 and 17 is more likely to be the victim of a violent crime than are persons past their mid-twenties. U.S. courts handle over 4,000 delinquency cases a day.

Juvenile courts are faced with an increasing and changing workload, and often do not have the resources to provide the intensity and breadth of services needed by youth and their families. Increasingly, there is interest in handling cases within a prevention and early intervention framework. A majority of juvenile first offenders commit a second offense. A pattern of criminal offenses is associated with educational failure, drug and alcohol abuse, negative peer interactions, and onset of adult crime. The costs of incarceration range from $16,300 to $40,000 depending on location and range of services.

At the same time, it is becoming clearer that family and community factors play a large part in influencing delinquent behavior. These influences include poor parental monitoring and communication, parental hostility, negative peer influences, lack of parental involvement in education, substance abuse, marital discord, school failure, father absence, poverty and its corollary, residing in an underclass neighborhood.

In Athens, Georgia, the community, like many communities, struggles with an unacceptable rate of juvenile crime and poverty. The Family Solutions Program (FSP) was established in 1992 with funds initially provided from the Georgia Children and Youth Coordinating Council, an agency promoting innovative programs to address youth problems. The intent was to go beyond the customary punitive role of the court that would include the recognition of influences upon youth that lead to delinquency.

Family intervention programs addressing youth problems have attracted increasing interest. Multiple family group models to ameliorate psychopathology and alcoholism, home-based family services, family therapy with juvenile delinquents, and family intervention to address school-related problems reflect a family/community perspective in delinquency intervention. A multiple family intervention program, the FSP contains ten themes vital to its success: (1) trust and willingness to help each other; (2) searching for competencies and strengths within and between families and moving toward problem-resolution; (3) targeting the needs and changes of parents as well as those of the youth; (4) creating a forum for all ideas to be heard and respected; (5) consistent flexibility in program topics within and across groups; (6) promoting long and short term goals for change, both during and after the program; (7) providing inspirational experiences to motivate the youth and/or parent to adopt new attitudes or behaviors; (8) familiarizing families with resources available in the community; (9) providing youth with opportunities to contribute to their community; and (10) identifying through risk assessment and group process vulnerabilities of youth such as school failure or constant interpersonal conflict, and implementing topics and activities that address these difficulties, such as conflict-resolution and anger management.

Why a Multiple Family Group Model?

Distrust: Group processes are particularly valuable for families who distrust professional systems. One of the common errors in mental health delivery is the assumption that people who are troubled will seek help from professionals similar to those who seek physicians when ill. However, families in FSP are not self-referrals but are court-mandated. It cannot be assumed that families bring a high level of motivation or confidence in professionals. Initially most families appearing in the juvenile court resist help-seeking.

The FSP builds on the collective experience of group members across participating families. Anxieties, defensive postures, and angry feelings are the material for group discussion. Advice and answers are avoided; rather solutions are generated from the co-created meanings emerging from the group process. Family members who share their own stories create an environment of empathy and emotional support. Motivation to change increases as each observes and shares the suffering and frustration of others.

Hope: Despite individual feelings of disempowerment and despondency, a group of persons sharing similar circumstances provide validation and hope for each other. Discouraged people have difficulty accepting information, suggestions, or views from professionals whom they see as empowered or more positive about their lives. Parents and youth may be tempted to feel, "easy for you to say," or "how would you know" to those with whom they see little in common. Instead, the group process derives ideas, cognitive frames, and prescriptions for behavior changes that arise from their own experiences. The group

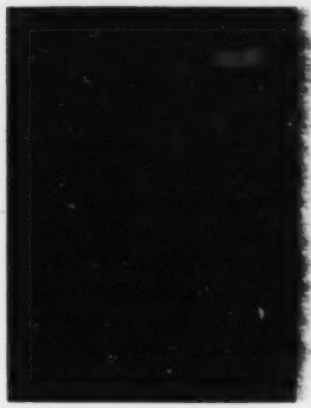
process allows the families to own what they are working out, rather than buying something manufactured by the professionals.

As an institution that protects society from youth misconduct and upholds societal standards through punitive actions, juvenile courts are viewed as regulatory institutions rather than human resources. Whether it be a valid perception or not, families, particularly youth, do not see juvenile courts as comprised of people who seek to help them. In some cases, parents value this perception of the court as a punitive agent, hoping that such action will intimidate the child to force behavior change, thereby resolving the parents' problem. The group process serves to alter this punitive expectation.

Cost-efficiency: This intervention does not require a separate professional interventionist to be assigned to each family. While co-facilitators are important in group process and logistical management of the program, fewer professionals are needed for the families who participate. And volunteers — such as 'graduate' families of the FSP, adults in the community who have a strong desire to advocate for youth, and those who wish to learn more about family intervention such as college interns — can be utilized at no cost. The energy and guidance applied to the family intervention are derived from the families working together. The families help structure dialogue, suggest program ideas, and care about the well-being of one another. A multiple family intervention program can complement other counseling services provided by juvenile court staff, or it can be the mainstay around which other counseling services are built.

What Happens in the FSP?

The Family Solutions Program is an intensive nine-week program. Activities and group discussion topics for each week are determined from information taken during the risk assessment and relevant issues having immediacy to families. The program is flexible enough to allow necessary changes to accommodate needs arising during a given cycle. Each week there is a different theme and focus based on the needs of the families. Although no two cycles are exactly alike the following outline illustrates a typical nine week cycle.



Week 1: *Orientation and development of group cohesion.* Facilitators conduct role plays to explore feelings that may otherwise not be expressed. The 'name game' engages all family members in a shared and enjoyable experience.

Week 2: *Decision making.* Videos are shown that emphasize the importance of good decisions.

Week 3: *Cooperation.* Activities requiring group cooperation and teamwork are performed.

Week 4: *Communication and rules.* Parents and youth are encouraged to talk about the importance of rules both inside and outside the home. An 'ideal parent/ideal child' exercise promotes self-reflection.

Week 5: *Importance of education.* Community representatives are invited to promote various educational resources that are available. A daily scheduling exercise leads parents and children into an assessment of their educational roles.

Week 6: *Conflict resolution and anger management.* The youth role play different conflicts they may encounter. Facilitators, parents and youth discuss possible ways to resolve conflict and manage anger. Then situations are role played a second time to provide opportunities to experience a more successful outcome.

Week 7: *Impact of shoplifting and other crimes.* Representatives from local stores and police officers talk about crime and the impact it has on the community. Families discuss their views and concerns about crime. Youth write letters of apology and are invited to share remorse with parents. This provides closure.

Week 8: *Potential consequences.* The youth are taken on a tour of the local jail. During this time, the parents hear about and discuss parenting skills. Special cards to youth with parent comments are prepared.

Week 9: *Graduation Night.* This includes a potluck dinner and an inspirational guest speaker. Certificates of 'FSP Graduate' are presented to families.

Outcomes of the FSP

Outcome assessment of an innovative program must be considered important. Without this evaluation, speculation grows about the utility of a program and confidence wanes. Recently interest has been expressed from other communities and regions of the state to begin a similar program. Administrators representing these programs are very interested in the data regarding recidivism, as it helps speak the language of agency administrators, funding sources and political leaders.

Since 1992, 183 families have 'graduated' from the FSP. Twenty-four cycles with an average of 8 families each have been completed. The juvenile court, because of its increasing confidence in the FSP, has decided to refer ALL first offenders to the FSP with the exception of cases that require trial as an adult. The court has also accepted responsibility for funding the FSP as state funds have ended.

Since FSP's inception it has taken a serious interest in outcomes. Focus groups have been conducted with youth and families subsequent to their completion of the FSP to assess program benefits, quality of programming, juvenile court experiences, and other developments. In addition, at Graduation Night families complete a rating form assessing the benefits of each session and have an opportunity to share their experiences with the group. Many

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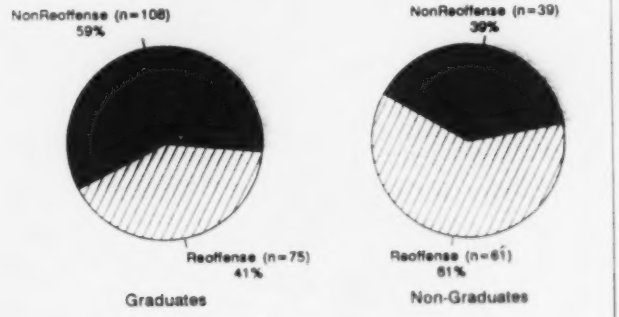
Figure 3
Recidivism of FSP Graduates vs. Non-Graduates



positive statements are made, and since the judge is often present, these testimonials add further confidence in the value of the FSP.

FSP graduates were compared to non-graduates (first offenders who were referred but never attended or attended no more than one or two sessions and had no other intervention). Recidivism rates have been tracked since 1992 and the data clearly indicate significant differences between FSP Graduates and non-graduates (41% vs. 61%). See Figure 3. Furthermore, re-offenders who are graduates of the FSP only re-offend on average once vs. twice for FSP non-graduates who re-offend. To address the possibility that these dramatic differences are due to self-selection into program participation, we examined varied factors that might indicate that participants were more motivated or higher functioning. We found no significant differences between the two groups on any demographic (e.g., age or family structure) or family variables (e.g., parental attitudes, family functioning, or parent-adolescent communication).

Coming In Future Issues

- Eating Disorders
- Community Prevention Models
- Targeting Hispanic Communities
- Teenage Gambling

William H. Quinn, Ph.D, is the Director of Clinical Research & Services in the Marriage & Family Therapy Program at the University of Georgia, and Director of the Family Solutions Program. He is currently completing a book entitled Multiple Family Group Intervention with Juvenile Offenders. *Keith Bell is a doctoral student in the Marriage & Family Therapy Program at the University of Georgia. Currently he serves as Research Coordinator and Co-Leader of the Family Solutions Program. Jennifer Ward currently serves as Co-Leader of the Family Solutions Program. In addition, she is on the Staff of the Athens/Clarke County, Georgia Juvenile Court in which she administers risk assessments to juvenile first offenders and serves as case manager for the Family Solutions Program.*

For more information about the FSP program please contact the first author at (706) 542-4938 or e-mail bquinn@fcs.uga.edu. Or refer to the article: Quinn, W.H., Sutphen, R., Michaels, M., & Gale, J. (1994). Juvenile Offenders: Characteristics of at-risk families and strategies for intervention. Journal of Addictions and Offender Counseling, *15, 2-23.*

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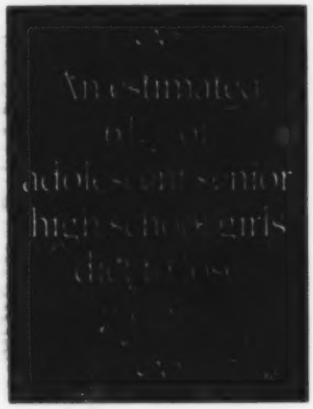
HISTORY AND PREVENTION OF EATING DISORDERS

By Karen Jones, Ph.D.

Introduction

Within the past few decades, the incidence of eating disorders has been rapidly increasing, particularly within the female population. One study reported a survey of 544 female high school/college students in which 15.4% met the current diagnostic criteria for a major eating disorder. Of these respondents, 4.2% could more specifically be identified as meeting diagnostic criteria for the diagnosis of anorexia nervosa. In a national survey of 266 secondary teachers, 63% indicated that eating disorders were a problem with the students at their school.

The national chapters of Anorexia Nervosa and Related Eating Disorders, Inc. (ANRED) and Anorexia Nervosa and Associated Disorders (ANAD), estimate that some 20% of the total adult female population between ages 12 and 30 are experiencing a major eating disorder. Professionals in educational, mental, and health care fields are concerned that both anorexia and bulimia nervosa have reached epidemic proportions in recent years, particularly among adolescent and young adult females.



The first half of this article reviews the historical development of eating disorders. The second half reviews prevention methods from the primary, secondary and tertiary viewpoint.

Historical Development

Anorexia nervosa was first reported in 1689. By 1873, both anorexia and bulimia nervosa were recognized and described as component symptoms of a pathological eating disorder syndrome. These early descriptions of an eating disorder syndrome included: body image disturbance, an intense desire for thinness to the point of emaciation in anorexics, and long periods of abstinence from food followed by consumption of enormous quantities of food and subsequent self-induced vomiting.

Sociocultural Factors: Society's Thin Ideal

For an overwhelming number of females in Western society, chronic dieting (due to feelings of being too fat) have become a way of life. An estimated 61% of adolescent senior high school girls diet to lose weight. Overrestrictive dieting is relatively widespread among populations of

FROM THE EDITOR'S P.C.

Dear Colleagues:

I am pleased to welcome you to our Fall issue of The Prevention Researcher *newsletter. This issue focuses on eating disorders among adolescents, a major problem throughout America today. It used to be that we only heard about this mental health issue among young athletes, today it is a major concern to all of us across the age, gender, and socio-demographic spectrum.*

Contributing authors for this issue are an impressive group of professionals. They include; Randa Ryan, Ph.D. from the University of Texas, Austin; Karen Jones, Ph.D. from the University of Georgia; Felica Romeo, Ph.D., from Florida Atlantic University; and Michael Wiederman, Ph.D., from Ball State University.

Incidentally, we have updated our web page. It has a whole new look and we are very excited at the number of visitors to our cyberspace site. Please check us out at:

http://www.integres.org/prevres/

Also remember that references are now on-line at our web site.

All the best for a gorgeous autumn!

Steven Ungerleider, Ph.D.
psychologist/editor

COMING IN FUTURE ISSUES

- Outreach to Hispanic Students and Their Families
- Community Prevention Models
- Teenage Gambling
- Drop-out Prevention

otherwise normal adolescents. In a survey of 2,000 high school students, 18% of the respondents reported fasting for 24 hours or more on a weekly basis to control weight. Of 669 surveyed subscribers to a popular women's magazine, 83% reported extreme (and disturbed) dieting patterns. Not only is dieting a way of life for many, but this intense concern for the thin ideal can begin in early adolescence. Support for an even earlier attitudinal indoctrination for thinness comes from a study which demonstrated that children as young as five or six will prefer a thin doll over a fat one. One does not need to look towards research to observe the stigma obesity holds and the honor slimness maintains, whether judged by the young, old, male, or female observer. Simple observation of Western culture media alone provides many examples of the cultural role-stereotyping for slim and obese persons. Stereotypical characteristics including "lazy" "sloppy," and "dirty" are associated with obesity; whereas, "beautiful," "friendly," and "intelligent" are associated with slimness.

Sex-Role Stereotyping

For centuries, beauty has been considered an essential characteristic of the ideal feminine stereotype. Beauty standards, however, are culturally bound, varying with the values of each society. Given the glamorous position the "thin ideal" holds in our current society, the pursuit of thinness by the female population can be understood as both a culturally bound phenomenon, and as an incorporated part of our current female stereotype. For example, a random sampling of male and female undergraduates revealed that weight and body shape were the central determinants of a woman's self-perceived attractiveness. Similar results were not found for the male students. Another study found that for 63% of 33,000 female research respondents, body weight was a key determinant of how they felt about themselves.

A salient sex bias related to desire and pursuit of the thin ideal does appear to exist, and is most influential with women. Additional support for this conclusion comes from clinical reports of the preponderance of females over males afflicted with eating disorders. It is estimated there is a 19 to 1 ratio of females to males who have been diagnosed with anorexia nervosa or bulimia nervosa.

Sex Role Orientation

Research suggests that a person's sex role orientation plays an important part in the development of eating disorders. For example, it has been hypothesized that women with eating disorders would, to a greater degree, evidence "hyperfemininity" when compared to normal controls. Such women would presumably adhere to a greater degree to the current cultural sex role stereotype and the thinness ideal for women. To investigate this hypothesis, a sample of 64 women was administered a sex-role inventory. Thirty-eight of these women met the diagnostic criteria for having an eating disorder while the remaining 26 women were normal controls. To test sex role orientation, all women were administered the Bem Sex Role Inventory and compared both on self-concept and a social desirability scale. Contrary to expectations, the eating disordered women were no more hyperfeminine in their sex role orientation. Instead the opposite was true. The eating disordered women scored undifferentiated (neither hyperfeminine, androgynous, or masculine) while the control subjects scored significantly higher than the eating disordered subjects on both the femininity and androgynous scales.

In another study, binge-purger anorexics were compared to a control group. Results indicated that the anorexic women were significantly more traditional in both their attitudes and behavior than were the controls. The anorexic group had a significantly greater discrepancy between their self-reported attitudes and behaviors. While their attitudes might have been liberated (though still less than the controls), the anorexics' behavior did not reflect it.

It is possible that the ambiguities the young women of today face in perceived social expectations contributes to eating disorders. Eating disordered women may be attempting to androgynize their appearance to avoid both the demands of womanhood and the conflictual issues about what it means today to be a woman.

Socioeconomic/Race Characteristics

As early as 1880, an over-representation of eating

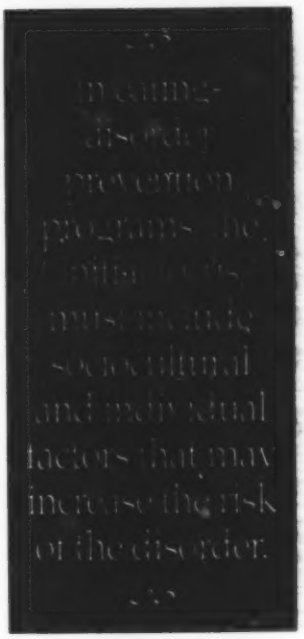
disorders within the higher economic classes was documented. In 1874, there was a higher prevalence of these disorders among Caucasians and a link between socioeconomic status and eating disorders. One researcher reported that only 5% of patients with eating disorders were minorities. Demographic data reported in eating disorder research provides further evidence of the influence of socioeconomic/race characteristics. Research as recent as 1986 has suggested that as minority groups become more upwardly mobile eating disorders among minorities also increases. Among minority, eating disordered patients, an overwhelming number of patients were from families which had already achieved or were moving towards a higher socioeconomic level. These investigators concluded that as socioeconomic status increases, the pressures to conform to social ideals also increases.

Prevention

The mental health field has traditionally recognized three types of prevention: primary, secondary, and tertiary. Most researchers agree that schools' and teachers' most significant contribution to a preventive program effort is likely to occur at the primary level; they will tend to have a moderate effect at the secondary level, and only slight influence at the tertiary level.

Primary Prevention

Researchers have evaluated school primary prevention programs targeting social problems such as teen drug and alcohol use, suicide, and eating disorders. In general, most of the better programs are designed first to educate students about the dangers and risks associated with the problem. Time is then devoted to teaching students ways to improve their coping, adapting, and decision-making skills to deal effectively with peer pressure and develop an improved self-concept. Outcome success rates of such school prevention programs have been encouraging especially when combined with family and community support.


eating-disorder prevention programs must address sociocultural and individual factors that may increase the risk of the disorder.

In eating-disorder prevention programs, the initial focus must include sociocultural and individual factors that may increase the risk of the disorder. For example, classroom emphasis must be given to social or individual factors that may exert influence on a person's nutritional awareness, eating habits, body image, self-esteem, and coping skills.

Nutritional Education: One researcher suggests that nutrition education has three components: knowledge, attitudes, and behavior. The first component, knowledge, involves an increase in the person's understanding of basic nutritional principles and concepts. The second component, attitudes involves an internal state that can be highly influenced by both internal and external factors and that ultimately motivates behavior. Imparting knowledge should never be considered sufficient in and of itself; quality nutrition education programs must take into account all three components and their interactions. Similarly, a number of researchers stress that it is important for students to learn to think about food in all of its complexities (e.g., nutritional, social, and psychological). The student should be prepared for a lifetime of decision making, rather than just learning about a set of nutrition principles, concepts, and habits.

Brush, Woolcott, and Kawash developed an affectively based nutrition education program that takes into account these three components. This program is directed at enhancing long-term decision-making abilities rather than merely encouraging transient adjustments to previous food habits. Topics covered in their nutrition education program include basic concepts and principles; factors that influence family members' food choices; eating "on the run"; nutrition-related concerns and disorders; and judging the reliability of nutritional information. Students are encouraged to relate and assess their own values concerning food and nutrition and to develop their own objectives related to these areas.

Living Skills: Recognizing the importance of self-concept and body image in the etiology of eating disorders, some researchers have stressed the importance of emphasis on these issues. For example, they suggest that adolescents and young adults should be assisted in developing greater self-acceptance and better strategies for expressing their feelings and dealing with others' negative comments. Other researchers suggest that educators interested in implementing a primary prevention program should consider including the topics of body image, self acceptance, and stress management in their curricular content, in addition to nutrition and weight management.

Secondary Prevention

The key aspects of any secondary prevention effort include knowledge and ability to identify early warning signs, and knowing where to refer individuals for prompt and appropriate assistance. A number of authors have provided descriptions of the overt signs and behaviors of students suspected of suicidal tendencies or substance abuse, as well as outlining courses of action to get these students help. Similarly, educators now have information on what to look for in students suspected of having an eating disorder and likewise, when, how, and where to assist them in getting help. The table on page 4 gives a

What are Eating Disorders?

By Karen Jones, Ph.D.

With the prevalence of eating disorders in school today, parents, educators, and student health personnel should know the different types and symptoms of the problem in order to help students at risk for these disorders.

Eating disorders have many variations. At one end of the spectrum are individuals who are anorexic only, often referred to as restricting anorexia nervosa. These people deny themselves food in order to reach a "thin" ideal. At the other extreme are individuals who are bulimic but who are obese. In between these two extremes are four other eating disorder variations:

- Anorexia in persons who also use bulimic techniques such as binging and purging.
- Bulimia in persons who were previously and who still may occasionally be anorexic.
- Normal weight bulimia.
- Bulimia in previously obese persons.

Anorexia with bulimia often is described as the most potentially life-threatening condition resulting from complications associated with both starvation and dehydration.

Regardless of the type of eating disorder, a number of characteristics are common to all eating disorders. A distorted body image is one of these. For example, a girl may think she has heavy thighs, when in fact, she does not. Out of control behavior which is uncharacteristic for the individual, low self-esteem, antisocial behavior, over-conforming, distrust, and being obsessive about and preoccupied with food, eating and weight control are other common characteristics.

Other indicators may include:

Anorexia

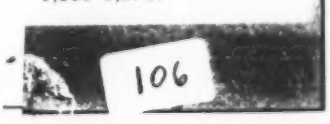
- amenorrhea (disruption of the menstrual cycle)
- hypothermia or complaints of being cold
- unusually compulsive behavior concerning exercise
- edema
- fine, downy hair covering the body surface
- self-induced vomiting
- hoarding of food
- hypotension
- overactivity
- hyperactive behavior – running everywhere, standing instead of sitting
- paleness (from iron deficiency) or jaundiced, yellowish appearance (resulting from ingestion of large amounts of vegetables containing carotene)
- paradoxic satiety (the delusion of fullness during starvation)
- weight at least 15 percent below standard
- wearing bulky clothes to hid thinness or drinking large amounts of water before weigh-ins
- emaciated appearance (protruding bones).

Bulimia

- frequent trips to the bathroom, especially after meals
- abdominal distention
- binge eating (two or more episodes per week)
- diuretic abuse
- self-induced vomiting following binge episodes
- laxative abuse
- enlarged parotid gland (looking similar to mumps) resulting from repeated self-induced vomiting
- teeth marks or bruising on the hands resulting from self-induced vomiting
- dental deterioration
- weight fluctuation of 10 or more pounds in one-month period.

These features may or may not be present depending on the particular variety of eating disorder or may be indicators of an entirely different disorder.

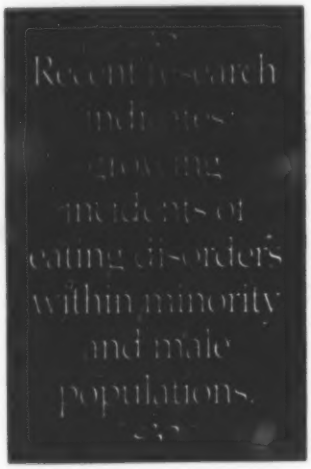
From: Nagel, K. & Jones, K. (Spring 1993). Eating Disorders: Prevention through education. Journal of Home Economics, *85(1), 55-56. And, Giannini, J.A., Newman, M., and Gold, M. (1990). Anorexia and Bulimia.* American Family Physician, *41, 1,169-1,176.*



brief description of eating disorder symptoms. Additionally, resources for help are given on page 11.

Tertiary prevention

Tertiary prevention is undertaken to prevent relapses in an individual already treated for a problem such as drug abuse, a suicidal attempt, or an eating disorder. A number of researchers have stressed the importance of providing a supportive environment in the classroom for recovering students. During this time of recovery, the teacher frequently becomes a key role model in the student's life, and therefore needs to



model sound nutritional principles and teach healthy body concepts.

Conclusion

Over the past 20 years, anorexia and bulimia nervosa have reached epidemic numbers within the adolescent and young adult population. This dramatic increase appears related to the strong emphasis contemporary society places on appearance, particularly body size and shape. In previous years eating disorders were considered elite disorders affecting almost

exclusively daughters of well-educated, financially successful Caucasian families. However, with the escalation in the numbers of persons developing eating disorders there has been an increase in the diversity of people affected. Specifically, recent research indicates growing incidents of eating disorders within minority and male populations.

Professionals working with adolescents are aware of the peer pressure teens are subjected to daily regardless of their race, sex, or socioeconomic level. Professionals interested in increasing adolescents' ability to resist societal pressure to pursue idealized and unrealistic body standards need to provide guidance and direction. Teens need help with healthy nutritional principles, realistic body ideals, self-esteem, self-efficacy, interpersonal relations, and coping skills.

This article is abstracted from Nagel, K.L. and Jones, K.H. (1992). Sociological factors in the development of eating disorders. Adolescence, *27, 107-113. And, Nagel, K.L., and Jones, K. H. (1993). Eating disorders: Prevention through education.* Journal of Home Economics, *85(1), 53-56.*

Karen H. Jones is Associate Professor in the Department of Occupational Studies, University of Georgia. Her research focuses on the preparation of educators who work with students who are disabled, disadvantaged, or experience other circumstances which may cause them to be at-risk.

EATING PROBLEMS IN ATHLETIC SETTINGS

By Randa Ryan, Ph.D.

Only recently has the recognition and management of eating problems in athletes become an issue. This is true because relatively little work has been done to document the extent of the problem, to pinpoint risk factors, and to evaluate whether eating disorders in athletes are different from those in other populations.

In this article, I describe the management of eating problems through education, prevention, identification, and intervention, based on (1) a review of the literature; (2) extensive conversation with coaches, athletes, and administrators; and (3) experience with hundreds of athletes from a variety of settings. While this article is focused on the athletic setting, many of these methods can be utilized in other populations as well. The initial work was done in the Department of Intercollegiate Athletics for Women at the University of Texas at Austin. This athletic department was one of the first to establish an organized and coordinated program to deal with eating problems.

Understanding and Identifying the Problem

Understanding the problem is necessary for its recognition and development of helping resources in different athletic settings. Though many factors are common to all levels and types of sport, each situation is unique. A Division I university cross-country coach confronts a more complex athletic environment than a summer league track coach. A ballet instructor at a prestigious school needs a more thorough understanding than a physical education teacher working with elementary students. Yet, each must learn the importance of identifying these problems and must develop means to educate their athletes.

Barriers to Identification

There are potential barriers to the identification of eating problems that are specific to sport. They include the following:

- Coaches avoid the issue because it seems overwhelming, too complicated, or because an athlete is training well and they are hesitant to interfere with success. Coaches also fear that they may, in some way, have created or contributed to the problem.
- Teammates are reluctant to seek help for their peers. They are uncertain about what can be done or how to help. Fellow athletes might also recognize behavior they see in themselves and, therefore, ignore the problem in teammates.
- Parents are not well informed and can inadvertently be part of the problem. Both lack of knowledge and overzealous behavior pose difficult barriers to overcome.
- Athletic administrators find dealing with eating problems unpleasant and worry about legal issues and adverse publicity. They tend to look for ready answers or quick fixes to such problems.
- Athletes who recognize the problem in themselves may be mired in secrecy, shame, and denial.

Methods Of Identification

Surveys and Questionnaires

Psychological measures are available to help identify individuals at risk for, or suffering from, an eating disorder. However, questionnaires and surveys are not usually effective. Expertise in the administration and interpretation of these tests is vital to their accuracy, and resources for these skills are limited in most athletic settings. Additionally, many athletes do not complete or answer the questionnaires correctly because of denial, shame or fear of reprisal.

Observing the Population

Understanding the physical and psychological problems associated with eating disorders is an important tool in identifying the problem. Though many indicators are difficult to recognize, knowledge of the signs, symptoms, and behaviors associated with eating disorders is crucial for people

who work with athletes. Coaches should be particularly aware of the associations they make between body weight and performance to athletes. Both parents and coaches should pay attention when athletes isolate themselves from the team, feel uncomfortable about how they look, or exhibit unhealthy changes in eating behavior.

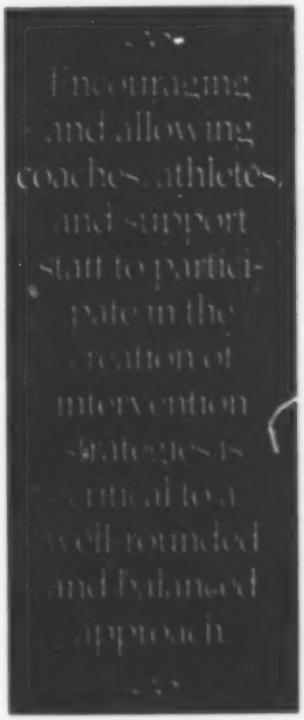
Talking With Athletes

In addition to observing individual athletes and team dynamics, working with athletes directly is helpful in recognizing an eating disorder. Given the opportunity in a non-threatening environment, athletes are usually honest in expressing feelings about self-image and self-esteem involving body weight, appearance, and weight as a performance factor.

The accuracy of this information is affected by the security of the setting in which it is gathered. Many athletes – intimidated by coaches, administrators, or parents – are not truthful, telling only what they think the authority figure wants to hear. Again, fear of reprisal, shame, denial, and secrecy are significant barriers. Therefore, it is crucial to create a mechanism for athletes to express themselves. Athletes are very aware of team norms, behaviors, and perceived pressure by the group. Many times they know whether the team or a particular individual is in trouble. As a result, some of the most reliable and useful information can come from the athletes themselves, if they feel secure enough to be honest.

This type of information can be collected in several ways. A combination of methods seems most effective because the variety of formats allows for differences in ability and style of communication.

Individual Interview: An individual from within the athletic environment has several advantages. Administrators, coaches, and support staff have knowledge of the history, structure, and personalities in the setting. Athletes often feel more comfortable with someone familiar, and as a result may be more honest. It is important, however, that an individual from within the athletic environment be knowledgeable about eating disorders. Objectivity is essential when listening. Any hint of condemnation limits the benefit of this information-gathering process.


Encouraging and allowing coaches, athletes, and support staff to participate in the creation of intervention strategies is critical to a well-rounded and balanced approach

It can also be helpful for the athletic program to retain an outside expert, especially if no one from the department is qualified or confident to handle the process. Individuals experienced in eating disorders who also have an intimate understanding of the athletic environment are difficult to find, but both these skills are important for such an individual to be effective.

Group Interview: Talking to athletes in teams or other groups provides a different kind of understanding. The dynamics of a team are often revealed in a group setting. Certain individuals are more comfortable when their feelings are reinforced by the group. They realize their feelings or responses are not strange or different if their teammates are expressing the same sentiments. A safe environment must be created for group interactions, and the athletes must believe there will not be negative repercussions.

Combining the process of talking with and observing athletes to identify eating-disordered behavior is most reliable to determine the type and degree of the potential problem.

Strategies for Intervention Programs

Defining the goal and strategies of intervention must be done with the specific athletic setting in mind. Consideration of the many factors that contribute to the development of eating disorders, with special attention to those specific to a particular environment, is critical to successful intervention

Four Steps Help Identify The Problem:

1. Identify and isolate the contributing factors within the specific athletic setting.
2. Formulate goals concerning intervention and prevention.
3. Create or acquire resources and long-term strategies to address the factors.
4. Develop educational resources about these factors.

Encouraging and allowing coaches, athletes, and support staff to participate in the creation of intervention strategies is critical to a well-rounded and balanced approach. Each group brings a unique and important perspective to this process. In addition, there is better understanding, support, and follow-through if all participants are involved in the intervention.

Education: Removing the Fear

Education is the central aspect of addressing and managing eating disorders in the athletic setting. It can involve a range of materials, professionals and speakers. Education should not be focused on just the athletes, but on the coaches, parents, and support staff as well. In designating an educational intervention, it is important to emphasize several key points.

Athletes: It is important for athletes to recognize the characteristics that make individuals vulnerable to eating disorders. Athletes must be encouraged to take responsibility to educate not only themselves but their parents and friends

about the signs, symptoms, and dangers of eating disorders.

It is also important that the fear of talking about eating disorders be removed and that athletes realize that eating disorders do not develop by talking about them or educating oneself about the risks. Fear of help-seeking also needs to be removed. Athletes must understand they will never reach their full athletic potential with an eating disorder, since it hinders performance. It is equally important to emphasize that getting help does not necessarily mean giving up sport. For some athletes, participation in athletics is part of the disorder, so they cannot continue, but many athletes have been able to get help for their disorder and return to competition.

Coaches: It is critical for coaches to learn to distinguish the important variables that affect body weight as a performance factor and to identify athletes who might be predisposed to eating disorders. Coaches must also be responsible for educating themselves and for encouraging awareness in their athletes. Talking with athletes about eating disorders does not create or encourage the behavior.

Parents: For parents, helping their children to feel comfortable talking about their changing bodies is critical. Parents should learn not to make unrealistic demands on their children, in body type or sport performance. They must be aware of how much their words mean, especially when they are critical of body shape and size. As parents, they are in the best position to recognize change in their children's behavior. They also must take responsibility for educating themselves and their young athletes about eating disorders.

Specific Educational Tools

Understanding what needs to be done is only part of the solution. Ensuring that everyone is aware of the potential problems that can arise in the athletic setting is of little help if athletes and coaches are not provided with – and use – the resources designed to affect change.

Body Composition: When in training, athletes put on muscle. Muscle is denser than fat, it takes up less space, and it weighs more. Most athletes increase their muscle mass and decrease their fat mass in the process of becoming trained. They feel leaner and their clothes are looser, yet the scale frequently reflects an increase in body weight. It is critical for athletes to be educated about the difference between body weight and body composition and be provided with the resources to have their body composition evaluated as opposed to just having their body weighed.

Counselors, Therapists, and Clinics: Each athletic setting should have a network of experienced support personnel. Included in this network should be a counselor and a therapist or clinic competent to work with eating disorders. It is important that athletes be made aware that they can see these individuals on their own, privately and confidentially.

Peer Groups: Using peer groups to facilitate education and intervention can also be an effective tool. Team leaders who are informed and resourceful in responding to the needs of their teammates are an important and easily developed resource. There are many ways to construct a network of team leaders. It can be as simple as making sure the team captain is knowledgeable about what to do if a teammate is in trouble. A weekly group meeting, scheduled and run by the athletes for the specific purpose of talking about these issues, can be valuable. Supporting other athletes and learning from those who know and understand these problems is a powerful process. A counselor can help athletes set up the group and be available to provide resources and input when necessary. Creating peer groups does not mean putting young people in the role of providing intervention and counseling services. Team leaders should not be asked or expected to be responsible for confronting fellow teammates. But, athletes should know how to refer a team-

Points for Everyone to Remember

- Individuals who are predisposed to eating disorders distort information about body weight. They interpret words about appearance differently. Comments about appearance can be misinterpreted.
- Many sufferers of eating disorders are the victims of dysfunctional families, sexual abuse, chemical imbalance, depression, and other variables that are exacerbated by situations that involve body-image and self-image.
- Eating disorders are very complicated and, like drug and substance abuse, are a symptom or a signal that something is wrong. It is not the eating disorder *per se* that must be treated, but a whole set of underlying issues that manifest in a self-destructive behavior.
- Extensive education, early recognition, and proper support services are the primary components in the prevention of eating disorders in everyone.

Adapted from: Dr. Randa Ryan, (1989). Eating Disorders: What Athletes, Coaches and Parents Should Know... *The Performance Team: The University of Texas at Austin.*

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mate who needs help, making sure the right people know the person is in trouble.

Intervention

Even when coaches are conscientious, athletes are educated, resource staff is available, and administrators are supportive, eating disorders will occur. Though upsetting to all who are aware of the situation, early intervention can greatly increase the chance of recovery and the potential of a return to sport. Once a problem has been identified, whether it results from difficulties of an entire team or an individual athlete, intervention is necessary.

The type of interventions to be implemented is the most important decision. The choice of inpatient care in a clinic or outpatient care directed by a trained therapist is dictated by the level and type of disorder the athlete is suffering from, the athlete's commitment to recovery, and the athlete's health. Use an expert who is knowledgeable in the field of eating disorders to help with these decisions.

Confidentiality can be a difficult problem in the sport setting. If the athlete seeks help independently, it rarely becomes an issue. But if an athlete has been confronted by a parent or coach, confidentiality must be addressed. Eating disorders can be life-threatening, and if they are added to the rigors of sport training without professional management, everyone is in a risky situation. When athletes still deny they have a problem, they might say they are getting help when they are not. If an athlete agrees to get help, someone must be in a position to monitor that process. The ideal situation is for the athlete to sign a release with the therapist so that a parent, support staff member, or coach can monitor attendance. Most athletes will agree to this format if they are assured that their personal issues will not be discussed, only their attendance and progress in recovery. Each situation is different and should be managed accordingly, but the therapist must be aware of the athlete's training demands should the decision be to continue to train. The coach must be made aware of the athlete's treatment demands in order to facilitate the recovery process and not inadvertently add to the problem.

Eating disorders in athletes are particularly difficult to deal with because body weight and composition are performance factors.

The athlete's attitude toward treatment is also critical. If denial, resentment, and anger create barriers to treatment, it might be necessary to suspend athletic participation until treatment is sought. Again, each situation is unique, but if there is awareness of an eating-disordered athlete, and the athlete is still allowed to train without intervention, the athletic environment now supports the disorder. The environment would be hindering effective treatment and contributing to the athlete's problem.

Summary

Understanding the factors contributing to eating disorders is important. Awareness of those aspects of sport that may also contribute is essential to the management of these problems with athletes. Pressure to perform and fear of failure cause stress for those who compete. Improper management of athletic success can create social and emotional isolation. Athletes are gifted, physically strong people who present a picture of indestructibility, and are reluctant to admit they have problems or need help. Some athletes are limited in their ability to interact with coaches, teammates, and peers because their time is primarily spent training. They might also limit their ordinary social activities and as a result be lacking in needed social development. When athletes with eating disorders are training well, no one wants to interfere, even if they are exhibiting self-destructive behavior. When athletes with eating disorders are training poorly, everyone is afraid the additional stress of confronting a difficult problem will be too much.

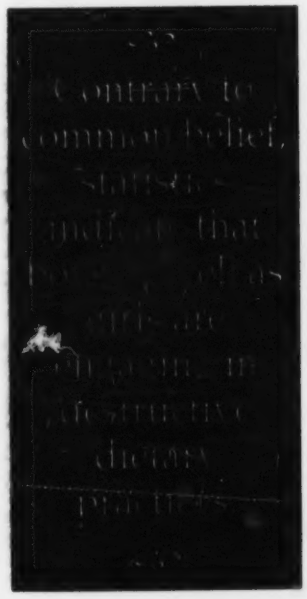
Eating disorders in athletes are particularly difficult to deal with because body weight and composition are performance factors. Critical to the management of body composition is sound nutritional knowledge – a clear understanding of healthy eating habits and the physiology of training as it relates to muscle mass and body weight. An athlete's body is a tool used to perform. It is constantly measured, evaluated, timed, critiqued, and redesigned for improved performance. But unlike an ordinary tool, an athlete's body is an integral part of the athlete. Too much measurement, too much critiquing, too much redesigning can predispose even the most well-balanced of athletes for problems. Eating disorders are serious, multifaceted situations. They are performance-limiting, they can be life-threatening, and they must be faced.

Dr. Randa Ryan is the Assistant Athletic Director for Student Services for the Women's Athletic Department at the University of Texas at Austin. *This article has been abstracted with permission, from the chapter "Management of Eating Problems in Athletic Settings" in K.D. Brownell, J. Rodin, J.H. Wilmore (Eds.).* Eating, Body Weight and Performance in Athletes: Disorders of Modern Society, *pp 334-362. Lea & Febiger: Malvern, PA.*

Adolescent Boys and Anorexia Nervosa

By Felica Romeo, Ed. D., Psy. D.

Anorexia Nervosa is an eating disorder that primarily affects adolescent girls and young adult females, and is considered to be uncommon among males. It is estimated that 1 in 200 adolescents between the ages of 12 and 18 – the high risk group – develop anorexia nervosa and 90% of those affected are females. However, there has been a steady increase in the reported incidence of male anorectics, from approximately 5% in 1985 to as much as 10% in 1987. Due to the cultural pressures for girls to be thin, many professionals and parents are already alert to the potential for risky dietary behavior; however many male anorectics remain unnoticed.



A national survey found that 1 in 8 teenage girls, and 4% of teenage boys had serious symptoms of anorexia nervosa and bulimia, and that one-third of both adolescent boys and girls had engaged in food binges. It also found that more than half of the adolescents resort to vigorous exercise, fasting, vomiting, and use of purgatives to control their weight. Contrary to common belief, these statistics indicate that boys as well as girls are engaging in destructive dietary practices.

Course of the Disorder

Like their female counterpart, the at-risk teenage or young adult male will announce that he is going on a diet to lose a few pounds. He begins by reducing his intake of carbohydrates and fat-containing foods. In addition, he will exercise to further reduce his weight. Even after he reaches his weight-loss goal, he continues dieting and weighs himself frequently. He often declares that he is "fat." Parents and friends become concerned about his weight loss and encourage him to eat more, but he refuses. He will adamantly declare that he is still "too fat." The anorectic suffers from a body image disturbance; he cannot recognize that he is too thin, or when the disorder progresses, that he is emaciated.

Some anorectics lose control over their severely restrictive diet and binge. A binge is defined differently by anorectics. For some, a binge may consist of straying from their diet by as little as one calorie; for others a binge may involve hundreds of calories. Intense anxiety may be experienced after a binge which the anorectic may reduce by immediately eliminating the food, either by self-induced vomiting, laxatives, or vigorous exercising. Male anorectics generally prefer to increase the amount of exercise rather than use the other methods. Afterwards, the dieting becomes more obsessive and hyperactivity may increase.

Prevention

Only about one-third of female victims of anorexia nervosa completely recover. Clinicians report that the prognosis is even poorer for male anorectics. It appears that males are generally more resistant to treatment. Given the severity of the disorder, there is a need to identify anorexic boys in the early stages of the disorder in order to prevent the devastating medical complications resulting from starvation. Since the male anorectic may seek medical attention for gastrointestinal discomfort, physicians need to consider the possibility of this diagnosis in teenage boys with significant weight loss.

Educators have focused their programs on obesity and restrictive dieting techniques. The curriculum needs to include information on how to manage weight, aerobic exercise, and proper nutrition. The detrimental effects of anorexia nervosa should be included in the curriculum, since students are the first to recognize the disorder in their classmates. This is seen in the anorectic's distorted attitude toward eating during lunch hour. Weight loss is also noticed when the anorectic changes his clothes for physical education class. If peers inform a teacher or counselor about their concerns, early intervention can be initiated.

This article has been abstracted, with permission from the author, from:
Romeo, F. (1994). Adolescent boys and anorexia nervosa. Adolescence, 29, 643-647.

Adolescent Substance Use and Eating Disorders

By Michael W. Wiederman, Ph.D.

The research literature indicates that, in general, adult women with bulimic symptoms are more likely to use or abuse a variety of substances relative to their peers with anorexic symptoms or no eating disorder symptoms at all. In other words, it appears that bulimia may be an indicator of increased likelihood to use drugs, or vice versa. There have been few studies involving adolescent girls, and most of those that have been conducted have used nonclinical samples. With these samples of high school or college students, the presence of bulimic behavior is typically related to increased substance use. Still, what about girls who meet diagnostic criteria for an eating disorder? Is substance use among adolescents with eating disorders best explained by particular eating disorder symptoms or by certain clinical and personality characteristics which are associated with disordered eating?

To address these issues, my colleague Tamara Pryor and I studied more than 100 adolescent girls who were presented for evaluation at an eating disorders clinic and met diagnostic criteria for either anorexia nervosa or bulimia nervosa. We hoped to learn whether substance use differed among the girls as a function of their diagnosis, their symptom presentation and severity, or related personality traits.

Participants and Methods

We collected data from 59 girls with anorexia nervosa and 58 girls with bulimia nervosa. These girls ranged in age from 12 to 17 years, with an average of age 15.4 years. All but three of the girls were non-Hispanic, White. In the process of completing measures during the intake evaluation at the university-based clinic, the girls indicated whether they had ever used each of eight substances: alcohol, amphetamines, barbiturates, hallucinogens, marijuana, tranquilizers, cocaine, and cigarettes. They were also asked whether they had ever experienced several problematic behaviors: attempted suicide, physical self-harm, stealing, and sexual intercourse. Nearly all of the girls completed the Eating Disorders Inventory (EDI). The EDI is a widely-used instrument designed to measure several characteristics which often accompany disordered eating, including: drive for thinness (fear of fat), bulimia (or loss of control over eating), body dissatisfaction, sense of personal ineffectiveness, perfectionism, interpersonal distrust, maturity fears (or the desire to remain a child), and relative lack of interoceptive awareness (confusion and apprehension in recognizing and accurately responding to emotional states).

Research Results

Among the anorexic girls, alcohol, cigarettes, and marijuana were the only substances reported. Even so, less than 20% of the girls reported having ever ingested alcohol, the most common substance among this group. The bulimic adolescents, in contrast, reported having taken each of the eight substances, with prevalence ranging from a low of 3.4% for tranquilizers to a high of 67.2% for alcohol (29.3% of the bulimic girls used alcohol at least weekly). The bulimic girls reported having taken an average of 1.70 different substances in contrast to the anorexic girls who reported having taken an average of .38 different substances. Of the 59 anorexic girls, 13 experienced bulimic symptoms. However, most of their substance use occurred within this small subgroup. Of the 11 anorexic girls who indicated ever having used alcohol, 6 had bulimic symptoms. Clearly, bulimic symptoms were associated with increased likelihood of substance use among these adolescents with clinical eating disorders.

Next we looked at whether increased substance use was related to other problematic behaviors. We found that the adolescents who had taken a greater number of different substances were substantially more likely to have engaged in sexual intercourse, stealing, or attempted suicide, although not more likely to have engaged in physical self-harm (without the intent of suicide).

What about symptom severity and related personality traits? Last, we correlated scores on each of the EDI scales with the total number of different substances each adolescent had used. We found that only scores on the Interoceptive Awareness scale were relat-

ed to substance use. Girls in our sample (after statistically controlling for age, type of eating disorder, and scores on the other EDI scales) who displayed the greatest problems with interoceptive awareness reported having taken the greatest number of different substances.

Summary and Implications

Incidence of substance use was greater among adolescent girls with bulimia nervosa compared to peers with anorexia nervosa, and was related to having engaged in other problematic behaviors such as sexual intercourse, stealing, and attempted suicide. However, after controlling for age and diagnosis, substance use was unrelated to scores on the EDI scales typically considered measures of eating disorder symptomatology (i.e., drive for thinness, body dissatisfaction, bulimia). Thus, more severe eating disorder symptoms were not predictive of having used a greater number of substances. Regardless of the age or diagnosis of the adolescent, use of a greater number of substances was related to increased problems with interoceptive awareness. Due to the correlational nature of the current study, we are unable to discern the direction of the apparent relationship between substance use and interoceptive awareness. Perhaps difficulties with interoceptive awareness predispose adolescent girls with eating disorders to engage in substance use as a means of numbing uncomfortable, yet unintelligible, feelings. It is also possible that substance use among such girls further intensifies problems with identifying and responding to emotion, or feeling affectively out of control. Regardless, efforts to treat and prevent the coexistence of disordered eating and substance use among adolescent girls might be fruitfully directed at assisting girls at risk in understanding the nature of their emotions and subsequently developing positive coping strategies to handle them.

Michael Wiederman, Ph.D., is Assistant Professor, Department of Psychological Science, Ball State University (Muncie, IN 47306-0520). He completed a Postdoctoral Fellowship in the Eating Disorders Program, Department of Psychiatry and Behavioral Sciences, University of Kansas School of Medicine-Wichita. Details regarding the research reviewed in the current article can be found in the following two reports: Wiederman, M. W., & Pryor, T. (1997). The relationship between substance use and clinical characteristics among adolescent girls with anorexia nervosa or bulimia nervosa. Journal of Child and Adolescent Substance Abuse, 6(2), *in press.*
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Need to Know More?

The following are resources available for more information on Eating Disorders.*

National Organizations

Anorexia Nervosa and Related Eating Disorders (ANRED)
PO Box 5102
Eugene OR 97405
phone: 541-344-1144
http://www.anred.com

Eating Disorders Awareness & Prevention (EDAP)
603 Stewart St. Suite 803
Seattle WA 98101
phone: 206-382-3587
http://members.aol.com/edapinc/

International Association of Eating Disorders Professionals (IAEDP)
123 NW 13th St. #206
Boca Raton FL 33432-1618
phone: 800-800-8126

National Association of Anorexia Nervosa & Associated Disorders (ANAD)
PO Box 7
Highland Park IL 60035
phone: 847-831-3438
http://members.aol.com/anad20/index.html

National Eating Disorders Organization (NEDO)
6655 S. Yale Ave
Tulsa OK 74136
phone: 918-481-4055
http://www.laureate.com

Book Resources

Gürze Books
PO Box 2238
Carlsbad CA 92018
phone: 800-756-7533
http://www.gurze.com

World Wide Web Sites

Eating Disorders Shared Awareness
http://www.mirror-mirror.org/eatdis.htm

The Something Fishy Website on Eating Disorders
http://www.something-fishy.com/ed.htm

**The above mentioned resources are only suggestions.* The Prevention Researcher *does not endorse or promote resources or web sites.*

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